Party Sanctuary.

Boksburg's home to hedonism.

TARRYN MICHAEL / 0703669H
25 October 2013

Declaration

UNIVERSITY OF THE WITWATERSRAND

I __**Tarryn Michael**__ (Student number: __**0703669h**__ am a student

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Acknowledgments

This paper is dedicated to my family. To my parents **Michele** and **Steve**, thank you for your endless support this year and always. To my sister **Tatum**, you are an inspiration, thank you for always making me tea. To my brother, **Kane**, thank you for never failing to make me laugh.

To my wonderful supervisor **Hannah Le Roux**, thank you for understanding me. You are truly an inspiring woman. How honoured I am to gain some of your knowledge. Your wisdom, dedication and guidance have made this thesis something very special.

To **Thomas Chapman**, my mentor, thank you for giving me so much of your precious time this year. Your attitude towards architecture has taught me so much. I aspire to mimic your professional skills one day. I love you.

To **Bianca Fizzotti**, thank you for your never-ending encouragement this year. You are so talented; I couldn't have done this without you.

To **Dino Fizzotti,** what a talented man you are. Thank you for making my vision come true with the lighting. Our collaboration made a product that 'blew their minds'.

To **Emmaneel,** thank you for helping me with the layout of this document. You are wonderful.

To **Jon Mirtschin**, thank you for all your help with the 'cloud'. You are a great addition to the school. I could not have 3d printed my model without you.

To **Jonathan Noble**, thank you for all of your support this year. How wonderful it is that you were there in the very beginning as my first year design lecturer and now, at the end, as the head of the master's program. You are a legend.

To **Randall Bird,** thank you for your advice at the very beginning, and for lending me the book that 'kickstarted' my essay.

To **Dr.K.Li** from the faculty of Engineering, thank you for looking at the 'cloud' so many times. Your structural knowledge is much appreciated.

To **Craig Symes** from the Biology faculty, thank you for your expert advice on bird migration.

To **Ludwig Hansen,** thank you for giving me some of your precious time. You are truly an inspiring professional.

To **Michael Cornwell**, thank you for all of your guidance throughout the year and thank you for your help at the end.

To **Josh Wilson,** thank you for your technical advice and help with the 'cloud's' skin.

To **Hilton Judin**, a half an hour review session with you made all the difference in the world. Thank you

To **Holger Deppe** and **Gerald Chungu,** thank you for making the arrangements for the 3d printer.

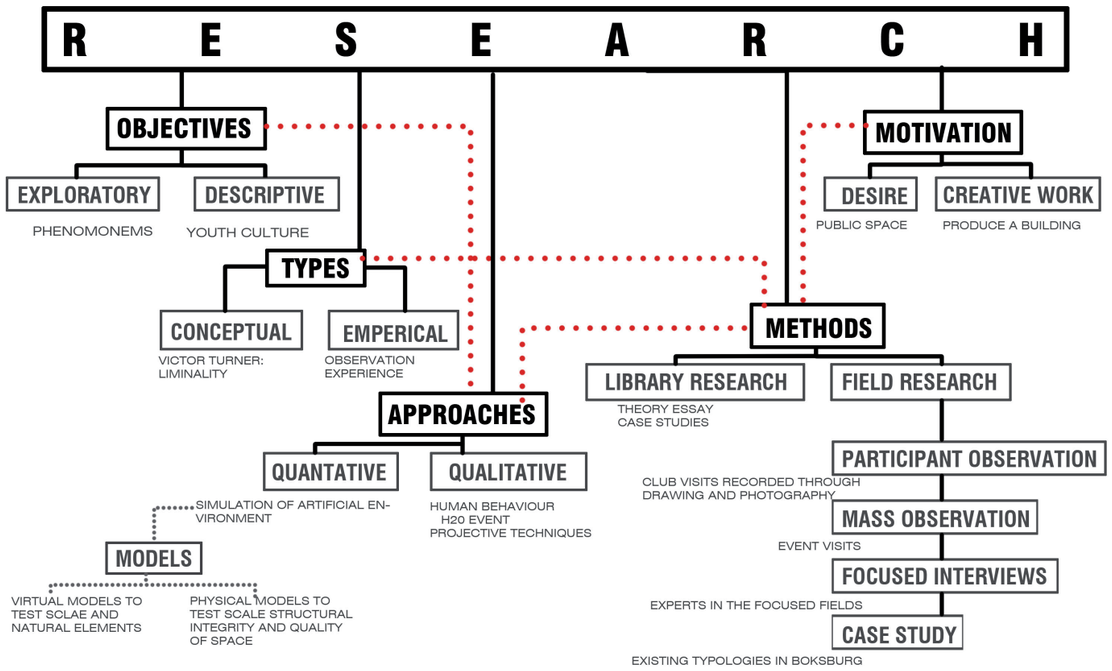
To **Paul Kotze**, thank you for your encouragement

To **Bianca Lima,** thank you for offering me a place as a bartender at the H_20 dance festival for the past seven years.

To **Anthony Backos (House Hold Funk),** you are a great DJ and music producer, thank you for inspiring me.

To **Ceilidh Bradley**, thank you for sitting with me and talking about my design. You make everything seem so easy. Thank you for being my guardian angel in the last two weeks of this thesis.

Finally to the Orange office, **Suzanne Schekman**, **Yolande Kluth** and **Frikkie Botha** thank you for making me laugh. To Suzanne, thank you for encouraging me to be confident with my thesis. To Yolande, thank you for the late nights, laughs and enduring support. You guys made the studio a great place to spend the year.



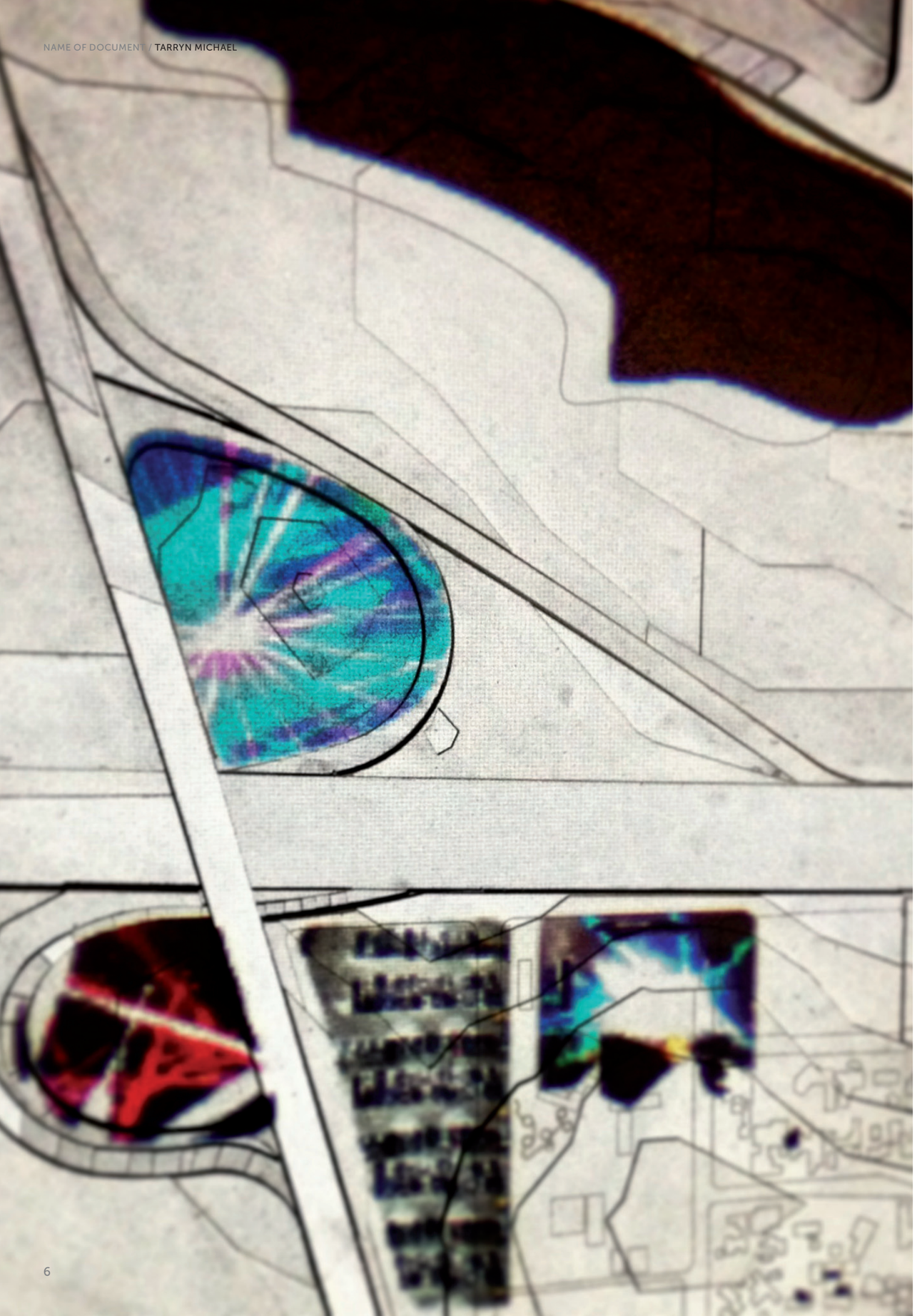
Abstract

Boksburg's landscape is home to many left-over, forgotten, and wasteful spaces which offer no return. This dissertation will explore these elusive landscapes, and through design, breach one of these thresholds. Humans long for refuge. Nature should return.

This dissertation explores the theory of 'liminality'. This theory was used to understand the notions related to event. The application of the 'liminal' occur in a transient and a material manner. The three narratives, within this dissertation, that marry this theory are: the 'cloud', the 'wetland' and the 'landscape'.

The youth culture of Johannesburg seeks release from the quotidian. Can an understated city on the East Rand of Gauteng host a public space that caters for different user groups? Can this public space be appropriated for events? Can this public space supply Johannesburg with a definition for a 'beach' in a landlocked city?

The architecture is to conjure a sense of liberty and choice within the users and the role of architecture is to create a platform for diversity. The design aims to construct a place where society can re-create itself; where nature can reconcile the damaged environment; and where event can serve to produce ephemeral architecture to make [other\younger\ better\greener] worlds.



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All images in this dissertation are by the author unless otherwise specified.

'After concert blues': photograph, H_20 event. Boksburg.2013

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Culture

INTRODUCTION

Its 08:00 am on a Saturday and the sky is absent of any rain threatening clouds. I must not forget to put sunblock, water, a cap and a change of clothes into my backpack. Breakfast is at the usual meeting spot-inside the strip mall across the main road from our destination. We, the team of bartenders, are to fill our stomachs while we still have clean hands, time and energy. It is going to be a long day. We arrive at Wild Waters and park on the sand road right across from the only entrance, we have a smoke then enter through the humble yet looming entrance which will serve as the rabbit-hole for thousands over the next twelve hours. Seen without the heaving crowds; the venue seems poised. Natural light filters through the tall trees and reflects off the fake rocks which create our indirect tight path to the open green scene. Progressive house music is being tested through the many speakers but seems too loud in the still empty island and I can feel the beats of the sound competing with that of my heart, yet it doesn't fail to excite me. *Lavodka* sails of signage invite some into the VIP section to the left, up the stairs. The wave pool glistens but is still. The tiny men in the distance climb the stage scaffolding like little ants circulating through blades of grass. The yellow material to our right, which wraps the edges of the octagonal shaped table layout, is our bar. As we take our stand behind this make-shift bar, we are prepared to fuel the hordes that will wash upon us as waves in artificial pools. This is the space in which we will occupy until all buckets are empty. It is our safety barrier from the wild, rebellious youth whom will soon surround us. The only occupants of the scene are the members of staff: men with radios; bouncers who walk in unison; electricians; other bartenders from the different surrounding bars and us-the Caipirinha team. It all begins, for the next twelve hours I will be in an abyss: filling bucket after bucket with a sticky Brazilian customary cocktail; stacking these into towers and exchanging cocktails for money; lowering the tower of cocktails; rebuilding the tower and so on- all the while moving to the beautiful sounds which exit the speakers. We are part of a hedonistic ritual. We are young. We demand a good time. It is hot.

Fig 1.1 **Photograph:** a member of staff at the Sweedish House Mafia (SHM) Performance, H20,2013.

Fig 1.2 **'Play', photograph:** youth standing on the water slide at SHM, H20, 2013

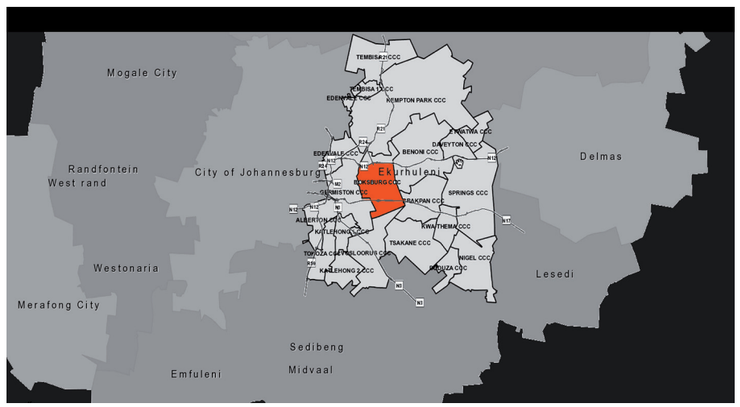
Context and Motivation

HISTORY OF EKURHULENI

Ekurhuleni means 'a place of peace'. The Ekurhuleni metropolitan region in Gauteng is known for its manufacturing. Johannesburg's economic size rests on the production of performance of the Ekurhuleni regions. The region comprises of various towns such as Alberton, Bedfordview, Benoni, Boksburg, Brakpan, Edenvale, Germiston, Kempton Park, Nigel, Springs and the area in which the O.R Tambo International Airport consumes. (See Fig. 1.3)) The strength of the region lies in its historical minerals mined such as gold and coal. The Ekurhuleni region is also known for its scientific development and progress. Boksburg started as a piece of 'uitval grond'-an oddly shaped piece of land left over after the European farmers had marked out their own land" (EMM, 2011: 8).After the discovery of gold, an influx of mineral explorers fled into Boksburg, leading into increased strain onto the small residential zones. This caused the area to expand. After the Second World War the industrial areas boomed. Segregation of communities occurred due to the black population from rural areas searching for work.

Historically, Boksburg was mainly home to animals such as "wolves, jackals, ostriches and a variety of antelope and was ideal for farming" (EMM, 2011: 12), but today it is home to many main roads linking it to the airport, the inner city and its manufacturing hubs creating a town which can be labelled as the gateway into the city of Johannesburg.

Fig 1.3 **Regional Map:** Ekurhuleni, Boksburg and the proximity to Johannesburg, www.ekurhuleni.gov.za, 2010.



A need

PUBLIC SPACE

The Apartheid forced a nation to be segregated. This took on the form of social segregation, making it impossible in Johannesburg to find public space. The contemporary youth of South Africa are searching for something- something spiritual, something invoking belonging and something creating unity. The youth culture of contemporary South Africa has found their spirituality, unity, and sense of belonging in a culture of contemporary music rituals. These festivals should occur in public spaces. Johannesburg is landlocked, and its inhabitants search for places of sanctuary, refuge and a definition for 'beach' in a landlocked city.

This essay charts my interest in a youth culture and a site near Johannesburg that hosts 'H_20'; a music festival which occurs six times annually.Wild Waters is the site in which these spectacular events take place and is the focus of my research and design proposal. Wild Waters is situated in Boksburg, in the east of Johannesburg. My concern with the site and event is personal. The venue is close to my house, and presents a job opportunity. As a first year architecture student I did not want to be involved in many of the ritualistic activities that my school friends' attended-H20 was one of them. In a need to still feel part of my youth circles I found a job at the event as a bartender at the Caipirinha bar. From this octagonal temporary constructed bar I could see everything, hear everything and sometimes feel everything. My observation of this site started seven years ago.

Fig 1.4. **Caipirinha buckets:** Photograph showing how our team of barmen stacked the buckets of alcohol preparing for demand. H20,2013

Fig 1.5. **20 000 people:** A panaramic of what is seen from the Caipirinha Bar. H20, 2013

Research Questions

CONCEPT CONTEXT

The context in which the thesis has grown has three main liminal occurances:

1. Youth is a liminal age, a period of a humans life that does not last forever
2. Boksburg and the highway as the edge city are liminal spaces, a transition, a gateway and an arrival into Johannesburg from the airport.
3. Party events are liminal.

Based on these three concepts, the main research question for this thesis is:

How to do a design on the site? I understood the event through the concept of liminal. I then applied it ephemerally, through projections, and in a material form, through models. By selecting substances, that exist on or near my site, and providing these with a shape metaphorically or in material, I was able to create liminal qualities. Liminality became a basis for my design strategies.

Other questions followed this:

How can the notions of 'liminal space and liminality' (Turner, 1982) **create meaning in architecture?** Quality of a space can affect the function of it.

How does contemporary rituals and design create [other/better/younger/greener] worlds for the public user? The connection between youth culture, ritual and performance is evident in the chosen site. I explore this and other sites, built and in film, as examples of liminal space which infuse fantasy and different states of being.

How can design change the perception of the city's edge to the public user? The inner city has always dominated over the city's edge for me as a student studying in Johannesburg. The city's edge is its' arrival. The city's edge will host the newly proposed Aerotropolis and the city's edge is where I live.

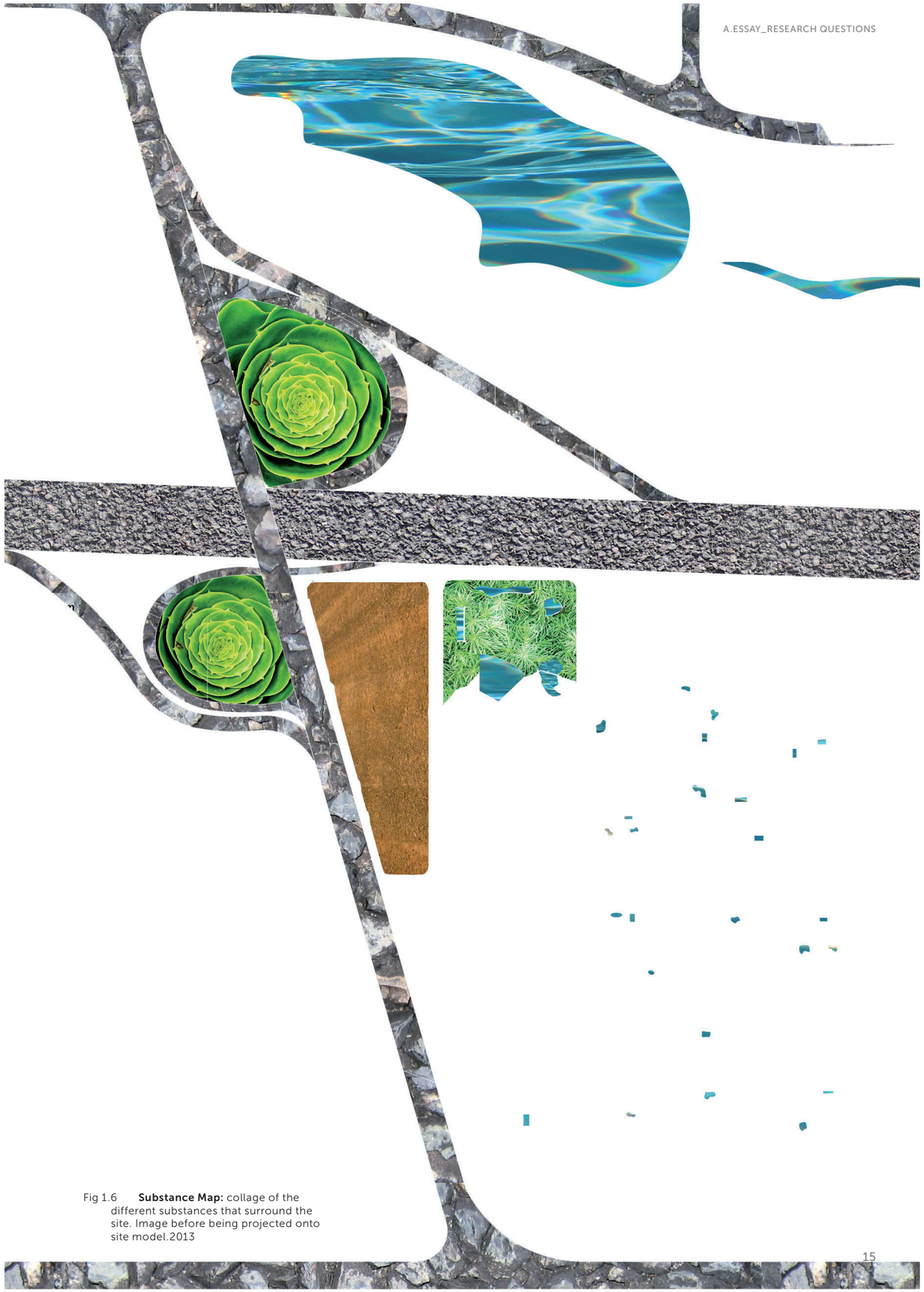


Fig 1.6 **Substance Map:** collage of the different substances that surround the site. Image before being projected onto site model.2013

Liminal Space and Liminality

RITUAL

Liminal means: "Of or relating to a transitional or initial stage of a process, or occupying a position at, or on both sides of, a boundary or threshold." (The Oxford English Dictionary)

Liminal is connected to ritual and ritual to event. Victor Turner's use of the term 'ritual subject' (Turner, 1982:24), for a user of a space is coherent with the rest of this paper...which represents the detachment of the ritual subjects (novices, candidates, neophytes or initiands" (Turner, 1982:24). When a crowd gathers in one place or space for a common cause (music festival), they move and act like a school of fish. The ritual subjects in this state seem to be caught by a net and that net is the common cause. The common cause in terms of the event, which this paper is exploring, is the liminal identity which is special and not fixed, created through spectacle, the DJ, the music. Coterminous ritual subjects seem to have the same limits and social boundaries in "space, time or meaning" (Turner, 1982:24). The faith that tends to occur among the school of fish during a ritual, like that of H20, lies in the shared moments of exhilaration. If the energy that is exerted off a group of users in a liminal state of mind can be felt by other surrounding users, then they too "feel as one" in that they too have reached the 'in-between' ephemera phase (Turner, 1982:47). A feeling occurs more quickly than thought does within a group of people. The struggle lies in retaining the feeling. Can architecture sustain it?

"...Liminal entities are neither here nor there; they are betwixt and between..."
Victor Turner

To further elaborate on the above question, public space would need to be addressed in terms of liminal space. Liminality can also be of a negative energy which may include the experience with death, disease, drug overdose, war and suicide. Because the event ejects positive liminal states in the user caused by some narcotic intake, mostly musical sounds and dance, the homogenous high is not permanent. Spaces, however, possess the potential power to sustain this liminal state they surround and provide the 'communitas' (Turners' concept: "denotes an intense feeling of social togetherness" (Dictionary of anthropology)) the power to "invert the normative structure in which its participants are quotidianly involved." (Turner, 1982: 47) This is better termed "anti-structure" (Turner, 1982: 44). Can an environment which doesn't constrain its users, prolong the "margin or limen, when the past is momentarily negated, suspended, or abrogated, and the future has not yet begun, an instant of pure potentiality when everything, as it were, trembles in the balance"(Turner, 1982: 44)?

Arnold Van Gennep in his Rites de passage (Van Gennep, 1960) speaks of three specific phases related to ritual- separation, transition and incorporation. The first phase hosts a holy space and time that is distinct from that of a non-sacred or secular space and time. It becomes important here to think about what can change the quality of time, or what defines/ constructs a cultural realm which is defined as "out of time" (Van Gennep, 1960.) This phase should possess the opposite of secular time as well as the reversal of things. Victor Turner elaborates on this by giving an example of the ritual subject/s changing their previous social status and adopting another. In terms of design, the challenge will lie in a stage or space that transforms the ritual subjects' sense of fixed identity and rather initiate the user to want to escape from their previous normative state of being and venture into another, by entering into a space which eradicates any hint of the existing 'outside' social structure.

The second phase which Arnold Van Gennepp (1960:24) labels as the second phase is the "margin" phase or state where the ritual subjects pass through the "limen" (threshold) which in its vague qualities, one cannot pin point a time frame. It is within this stage that the "Liminal entities are neither here nor there; they are betwixt and between the positions assigned and arrayed by law, custom, convention, and ceremonials." (Turner, 1995:93).

Victor Turner's use of the word 'communitas' in 'From Ritual to Theatre' 1982 is based on the word community and commune and he states that within the liminal process, a sense of intimacy is formed. The reason for these new hybrid communities, which are formed during a ritual process like that of the H20 event, is because of the ritual subjects' forgotten formal status in society. A social hierarchy is forgotten and within these spaces of liminality, the users are not part of a particular state. This in-between state is where Van Gennep would say that the ritual subjects are "undergoing rites of passage" (Turner, 1982:24)

Tim Cresswell (2012:71) gives spatial examples of the previously discussed liminal spaces. A border which separates projected rules and customs from another set of rules and customs is one example. His use of the word "suspended" when describing a set of rules, reiterates the temporary period in which these changes occur. Liminality time frames also occur in motion, meaning that transport nodes and transport infrastructure is yet other forms of liminal journey. The communities or 'communitas' that are constantly being transformed into new temporary hybrids along or within transitory locomotives like the "road, the airport or the train" (Cresswell, 2012:71) are also spaces which possess liminal qualities or rather express liminal periods within its' users.

Fig 1.7 **Skrillex Performing:** The crowd 'fist-pump' in time with the beats
Nathan Thomas, 2013

...The challenge then is evident in solving the exclusivity of the space and identifying the parameters of public and private...

Water and Liminality

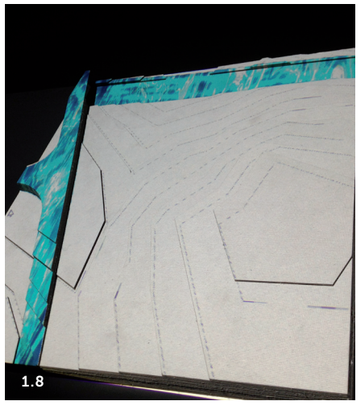
THE IMPORTANCE

The points where "place and journey" (Cresswell, 2012) cross are important. Because of the modern world where liminal places are also present in areas of motion like that of "airspace, seaspace and borderspace" (Cresswell, 2012) it is important to consider these 'non-spaces' in relation to the site of study, Wild Waters. This relationship will become apparent later. First it is important to draw on the importance of the place which is not fixed: the "moving location is also a moving place" (Cresswell, 2012); "a heterotopia or place outside of place that is both sealed from the world and yet part of the 'infinity of the sea', that of the infinite ocean" (Cresswell after Foucault, 1965). The phenomenon of a solid piece of architecture which is independent of its foundation is made possible through the notions of buoyancy- "the ship is something of fantasy, floating free of the realities at sea'" (Cresswell after Langewiesche, 2006). Unexpected behaviour and that likened to surprise and fantasy are the stories which these phenomenal places host inside their seamless structural membrane. The fact that they need the water to float, and the cities which they visit need their voyage to survive brings on the idea that although their positions vary in a liminal manner, there is a stronghold of reality still fixed within them. They carry sorts of matter which economies need to survive, supporting the reality of capitalism and consumerism. This is also apparent in the Wild Waters precinct, where although the complex offers an escape from the normative social forces, it too supports capitalism in that it survives as a business. The challenge then is evident in solving the exclusivity of the space and identifying the parameters of public and private by distinguishing the border and perhaps making it seamless to the "...architectural others..." (Blier, 1995 :296).

The relevance of the above notions of sea, ship and survival, to the site of study lies in the water which is also present at the H20 events as well as every other use as it stands. H_20 is the chemical formula for water and water is what lies in different sized pockets on the site. Is it possible to liken the ship at sea to the architectural solid that will be placed at the site of study? Yes, because of the strong similarities which exist between both typologies? These can be summed up here as : Public verse private; fluid places; fantasy locations; liminal notions; narratives; independence; infinity; membrane and occupancy, to name a few.

The Greek word baptisma means to immerse or submerge (Oxford English dictionary) and this ritual of purification is done with water. It is believed that once baptized, the subject is set free from sin and given a new spiritual life. "...therefore we are buried with him by baptism into death: that like as Christ was raised up from the dead by the glory of the Father, even so we should also walk into newness of life" (Romans 6:1-4) This Christian ritual of rebirth and renewal can be translated into an architectural program that can invoke a feeling of renewal within the user. This can create meaning in architecture through a duality of functions.

Another liminal space is airspace, as it is where two points cross over. These two points are place and journey. (Cresswell, 2012:72). This can also be literally connected to the site of study because of not only the proximity to O.R Tambo International Airport, but because there is airspace above the ground level of the site in which aeroplanes pass over. In a sense the liminal zones of my site occurs not only in plan view but also in section. Tim Cresswell believes that "a liminal place is a zone that often combines the seemingly antithetical worlds of place and mobility, of roots and routes- a site where we feel attachment and belonging." (Cresswell, 2012:72)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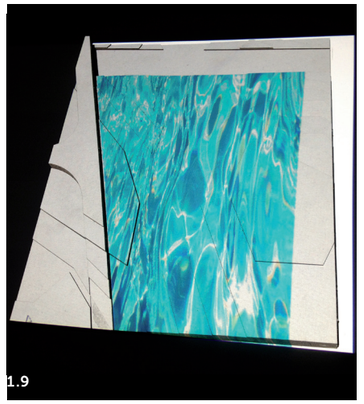
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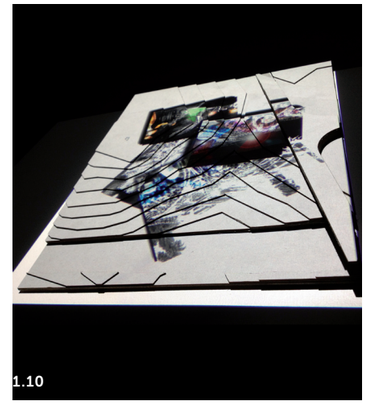
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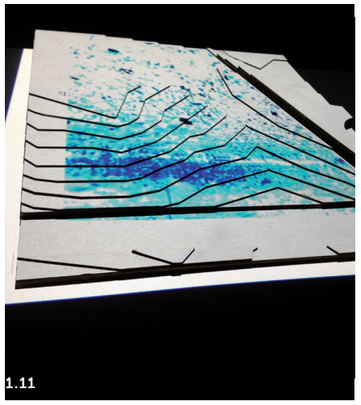
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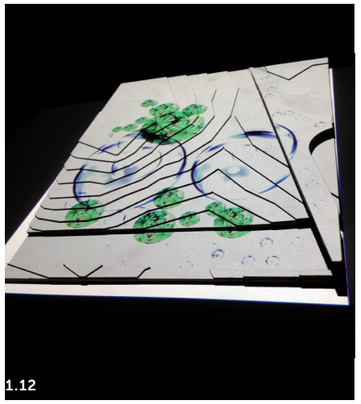
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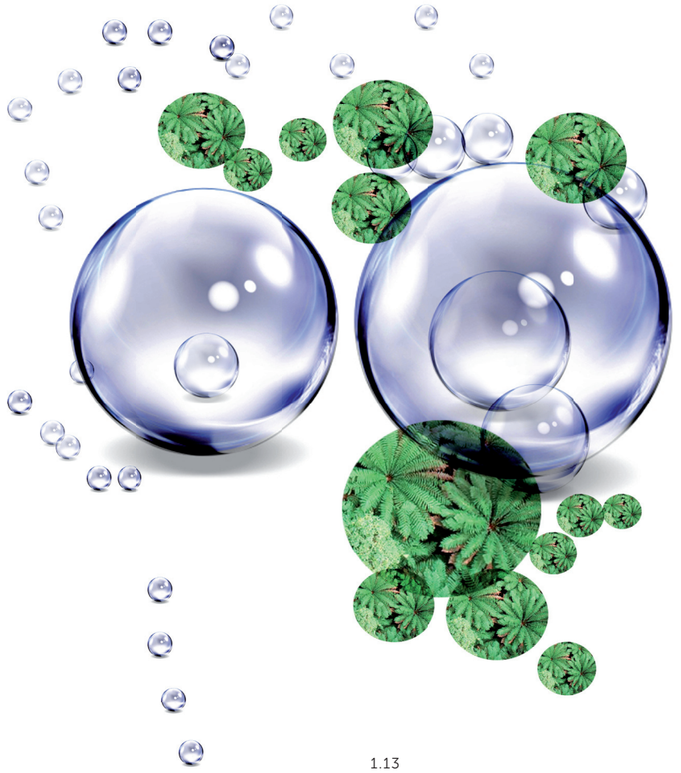
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Fig 1.8 **The Road and highway as water:** image projection mapping onto model.2013
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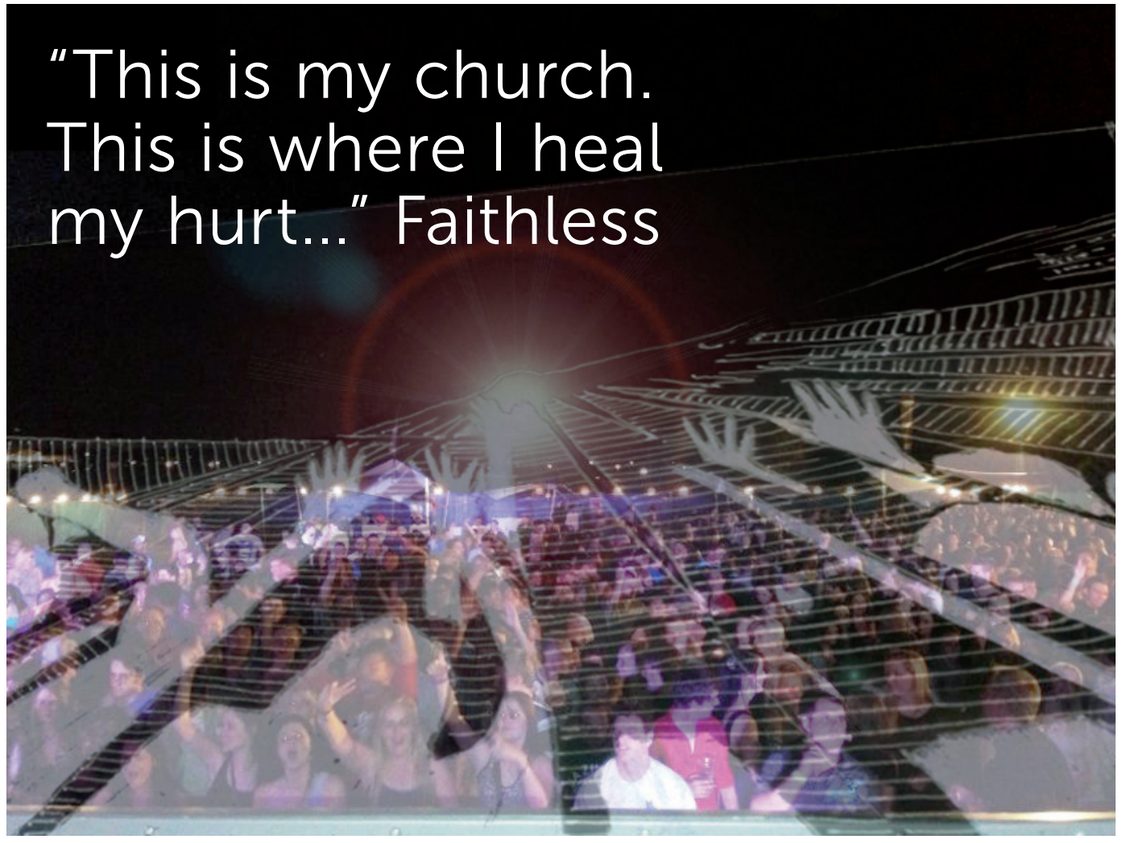

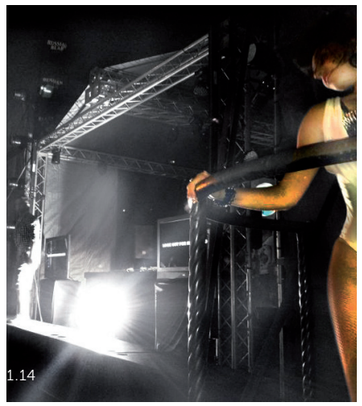
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Fig 1.13 **Worship:** Photograph and sketch of a crowd at 'Space' event, on the site. 2013
Fig 1.14 **Entertainment:** Photograph of the stage a and a dance podium at 'Space' on the site.2013.
Fig 1.15 **Projection:** Photograph of the stage lights and projection images at 'Space'.2013


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...interrelationship which exists between the invisible and visible, in other words the solid structure which a place is comprised of and that which makes its blood flow- the event.

Music and Ritual

MUSIC

Listening to music has been described as a ritual activity. This is because music has the ability to produce emotion in its listeners. When a group of people listen to the same sound at the same time anticipation is felt by all and then later realised by all because of the progressive nature of sounds, beats and climax. Youth cultures seem to find it satisfying to move in unison with one another. There is pleasure that is derived from staying in time with one another because of humans' desire for unity and equality. A social order is constructed. "Music can also be associated with trance states. In ceremonies of many groups, musical tension builds steadily over time, eventually resulting in trance, catharsis, or a similar sense of transfigurement or transcendence. Intensification of volume and tempo in music parallel and thus assist physiological and psychological excitement, leading to emotional discharge. " (Dissanyake, 2006:10). Through design, spaces which enhance acoustic auditory sounds for the user, together with ritualistic activities conditioned from music can create [other/better/younger/greener] worlds for the public user, a place to release.

Music that is redeeming and which allows listeners ,be them collective or individual, to feel free can aid a culture in its struggle against society like that of economic crises, resource shortages and the lack of a 'sense of belonging'. Music frees its listeners and it is a worldwide right for humans to listen and to take on their sense of ownership of their music. (Beal, 2009) It is apparent that a place with utopian aspects is due to the interrelationship which exists between the invisible and visible, in other words the solid structure which a place is comprised of and that which makes its blood flow- the event. In a sense it can be envisioned to invoke a private thrill within each ritual subject and a public action that the ritual subject displays. This is also evident with public socio-political issues within the outside society and the private occurrences' of performance to eradicate the depression that is felt by society because of these issues. (Stiles, 1996:76)

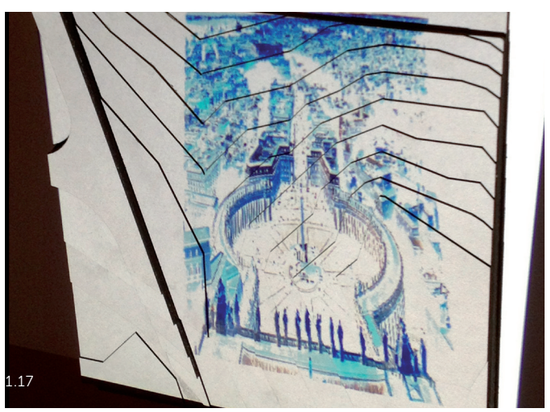
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Fig 1.16 **After concert blues ii**: Photograph taken from the childrens slide looking at the aftermath of an H_20 event 2013
Fig 1.17 **St.Peter's square:** Projection onto early site model showing the site as a public space.2013.

Performance

H20 DANCE FESTIVAL

The H20 festival which occurs on the site of study is a performance as international DJ's are invited to play for a large crowd of people. The ritual subjects see the disc-jockey as the performer, the artist, their god. The object being displayed in this artwork is the stage and the images which are displayed in and around the stage are the inanimate object of art where the DJ becomes an "animate subject rather than an inanimate object, whom viewers see as both the subject and the object of the work of art." (Stiles, 1996: 75)

"Performance unlike conventional art, asserts embodiment and interconnection in time, space and place as the basis of human experience, perception, and representation..." (Stiles, 1995:75) When a performance takes on the genre of spectacle in a space, the users of that space in their state become the epitome of what it is to be in a [transition/ liminal state/liberated stage]. Because performance offers may signifiers such as sound, light and images, one could assume that the interconnection between the artist (performer) and the work of art (the music, lighting, images) acts as the catalyst which aids the user in reaching what Kristine Stiles calls the "site of transfer". This 'site of transfer' can easily be linked to that which Arnold Van Gennep labels as the first stage of ritual- 'separation' which Van Gennep elaborates to be a "demarcation of sacred space and time from profane or secular space and time" (Van Gennep, 1960) for the users.

A spatial intention of performance positioning is not always obvious, as sight lines of the viewers are not the only informant. Kristine Stiles explains that one of the most important structural features of performance art is the 'commissure' which she explains is a connector in "a kind of parenthesis within which connection occurs." (Stiles, 1995:83). This idea of invisible connection between viewer and object on display can be translated into a space which is in-between, in that its position can take place medially to connect inside and outside, performer and viewer and solid and void.

H20- Africa's biggest day time dance festival turns 15

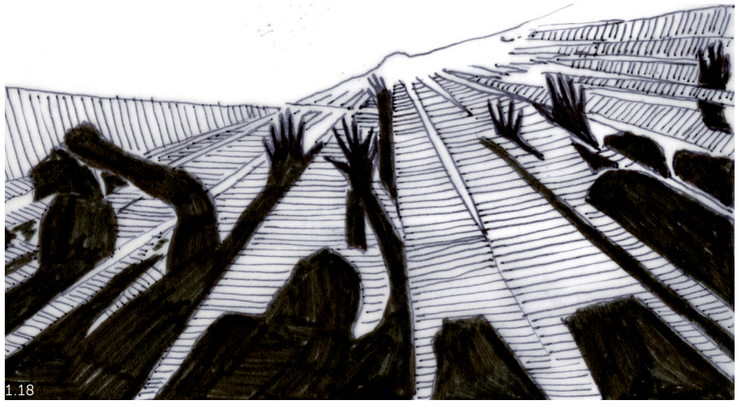
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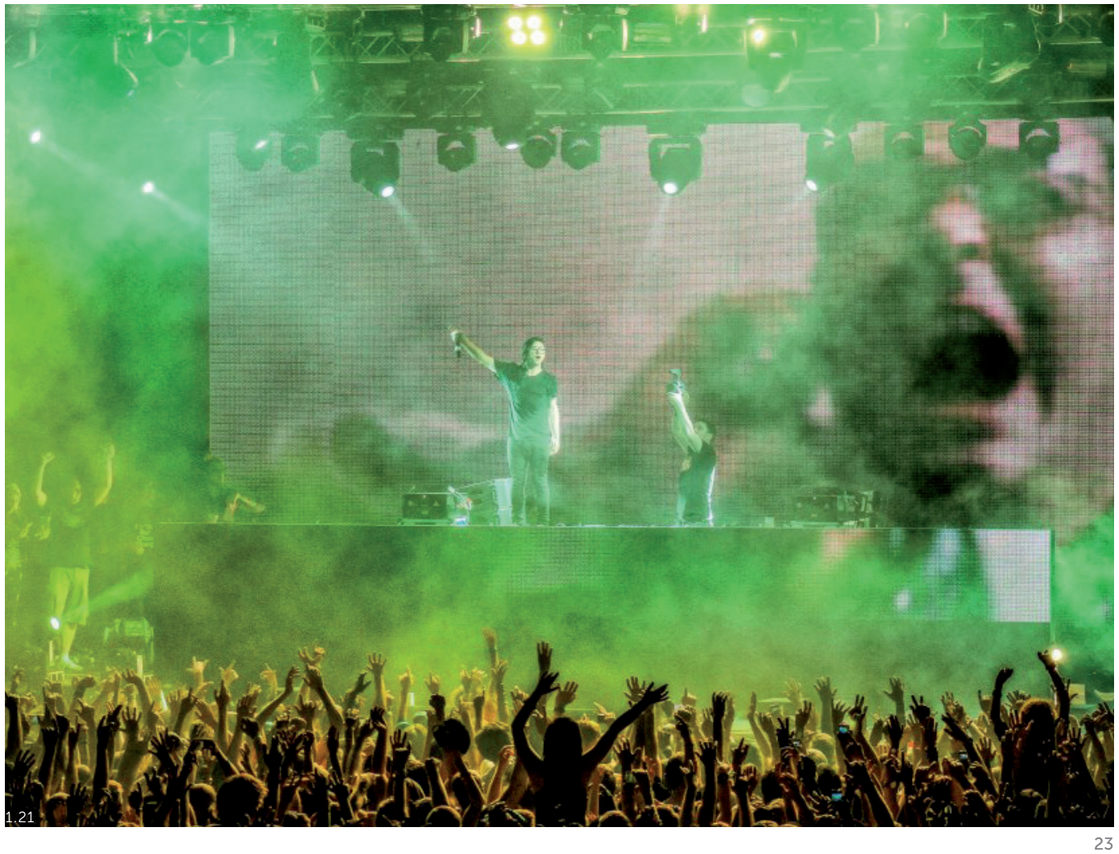
Fig 1.18 **Light canopy**: sketch of a crowd underneath ephemeral architecture. 2013

Fig 1.19 **Shading:** photograph and sketch depicting a need for sun shading, $H_20.2013$.

Fig 1.20 **Shelter:** photograph and sketch depicting a need for rain shelter, $H_20.2013$.

Fig 1.21 **DJ Skrillex performance:** photograph by Nathan Thomas, $H_20.2013$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... “the shape, colour, or arrangement which facilitates the making of vividly identified, powerfully structures, highly useful mental images of the environment.” (Lynch, 1960: 9)

Ritual, Religion and Public Space

WHERE?

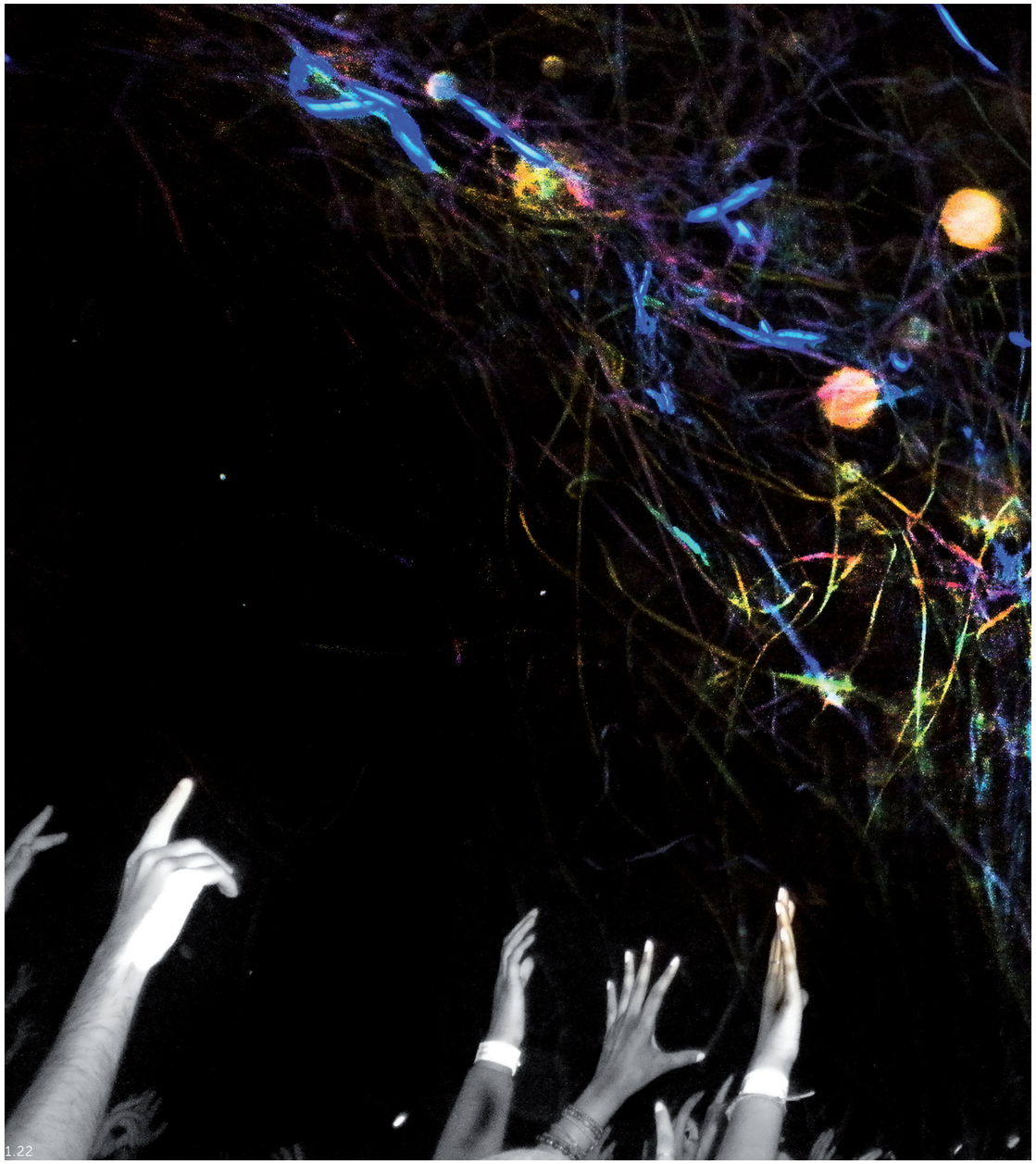
When Suzanne Preston Blier (1995) speaks of forced pre-established rituals that as a child endured, one will tend to think of their own life and their own home rituals which are no longer recognised by one as ritualistic in behaviour. This can be anything from religious obligations to brushing ones teeth. These can all have different time spans, some lasting seconds and others which consume duration of a life time. This essay will discuss, as a precedent for event ritual, the rituals involved around Christian customs: such as the Sabbath day mass celebration; the Zion Christian Chruch (ZCC) outdoor annual gathering; and the election of a pope in the Roman Catholic faith. All of the mentioned religious incidents have an alarming parallel to that of the modern day’s live DJ performance and all of which feature in my own ritual obligations. The dichotomy of the DJ and the priest can be likened to Max Weber’s notion of “diviner” (Of, from, or like God or a god.) and magician whom are both “permanently endowed with charisma” (Morris,1987) and both have the ability to invoke a state of ecstasy within their viewers. This is also true with the priest and DJ. The intention within this essay is not only to look at the religious anthropology related to the ritualistic events that the both above mentioned subjects offer, but rather the space that their followers occupy- drawing a comparison between the crowds’ ,that attend such events,and position in a space when the particular ceremonies occur. It is also important here to take note of the spatial requirements of these. Through the study of these precedents, the second question attached to this essay can begin to be answered.

ZION CHRISTIAN CHURCH (ZCC)

Zion Christian Church is a South African church which according to the 2001 census recorded to have five million followers. It is in Moria (Polokwane) that the annual Easter celebration occurs. Two million people attend the ritual gathering in a rural setting. It is this event that illustrates a similarity to the happenings which occur at Wild Waters-the site of study. ZCC members believe in the power of the Holy Spirit to heal through their mediator (leader, Bishop, administrator). Holy water, which is blessed by their leader, is also believed to have purifying and healing powers. (Smith, Financial Mail, 2007) This mysticism reflected in the faces of the attendees, is also visible in the faces of the ritual subjects which attend the H20 festivals. How does space appropriate this emotion of love for one another, unity, and joy? According to Kevin Lynch “a striking landscape is the skeleton upon which many primitive races erect socially important myths.” (Lynch, 1960: 4) Pleasant yet unified spaces of harmony are what give the user an undeniable ideal that they are safe. Comfort invoked in users comes from identity with a place and its structure. It is not only the public open space which is important to this essay, but also the architectural solid which will make the connection to the user possible. Lynch speaks of ‘imageability’ where all visual elements of the object attribute to its success. These include the “the shape, colour, or arrangement which facilitates the making of vividly identified, powerfully structures, highly useful mental images of the environment.” (Lynch, 1960: 9) The architectural lesson here is based on a generic theory of identity, structure and meaning, which is always applicable to a design of a public building, space or city. The aim of the comparison between H20 event and ZCC Easter gatherings is to see what is common among the two. This must not only be of the ‘other worlds’ that both these events invoke in a place, but also the physical natural environments in which both occur.

The other precedential study previously mentioned is that of the church itself. For this purpose it will be useful to look at one form of religious sacred space, although the principles which will be discussed apply to many non-secular places of worship. The point to be made lies in the layout of these sacred places and not the religious laws or rules which differ from religion to religion. From a micro scale of the shrine itself to the macro scale of a modern music festival, there is a noticeable observation to be made. This is the fact that in most non-profane places of worship, the inhabitants of the space all face one direction. The direction is the altar, a stage to worship.

Fig 1.22 **Worship**: Photograph of the hands of a crowd at *Sweedidh House Mafia*.$H_2$0. 2013



The City Edge

THE AEROTROPOLIS

"The aerotropolis is the frontier of the next phase of globalization, whether we like it or not" (Kasarda,J 2011) Johannesburg's International Airport lies only 3 km north of the site. If airports are to act as the nucleus of changing cities around the globe, then their surrounding urban context must house functions and programs which enhance this new city centre and cater for its' user's needs.

A precedent for great public space is lacking in our landlocked city. Without a body of water acting as a peripheral boundary for city functions, innovation in design is the only way forward. The airport and its surrounding uses is Johannesburg's city edge. Design can change the perception of the city's edge to the public user by creating a fantastic arrival. This gateway into the city must consider public space and host edges of an iconic nature. Emotions at arrival felt by the user should become a memory.

Orientation is vital in terms of locating points of arrival for the user to remember. What public image will the design evoke in the user's mind? (Lynch, 1960)

Ease of access through successful design inclusions is important to the perception of the city's edge. Transport nodes and types should therefore be considered. Coherence of the overall scene should be easily appropriated by enforcing a clear and easily identifiable environment. All of the above mentioned methods of design are only some of the ways in which design can change the perception of a user's mind towards a space, place or scene.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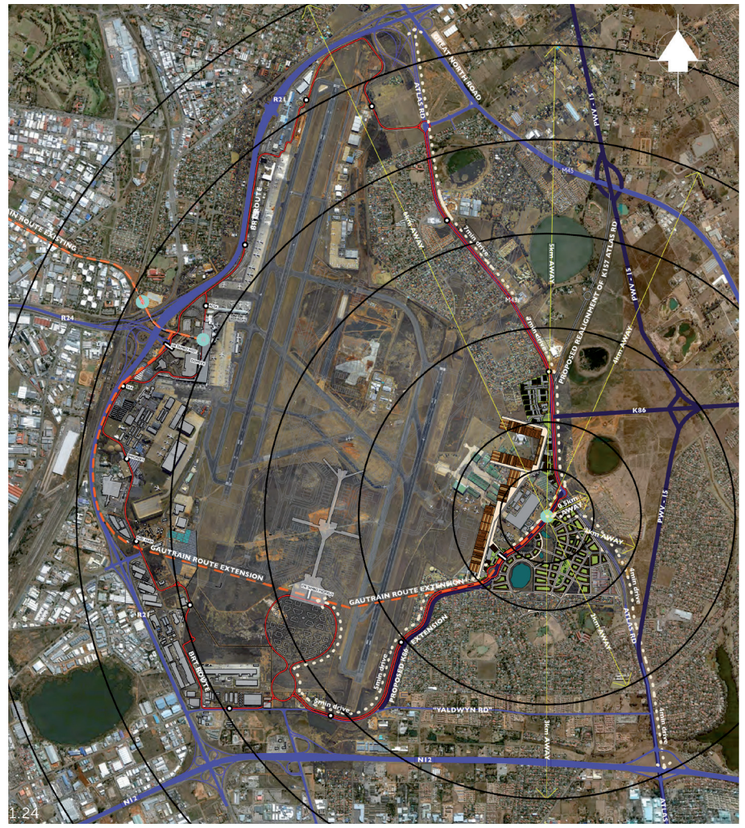

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Fig 1.23 **Wild Waters**: Photograph taken from the landscape at Wild Waters park showing aeroplane flying over. 2013

Fig 1.24 **Aerotropolis_Precinct_ Connectivity: [online]** < www.ekurhuleni.gov.za> [April 3rd 2013].

Fig 1.25 **Aerial photograph:** depicting site proximity to the airport [online] <www.ekurhuleni.gov.za> [Feb 26th 2013].

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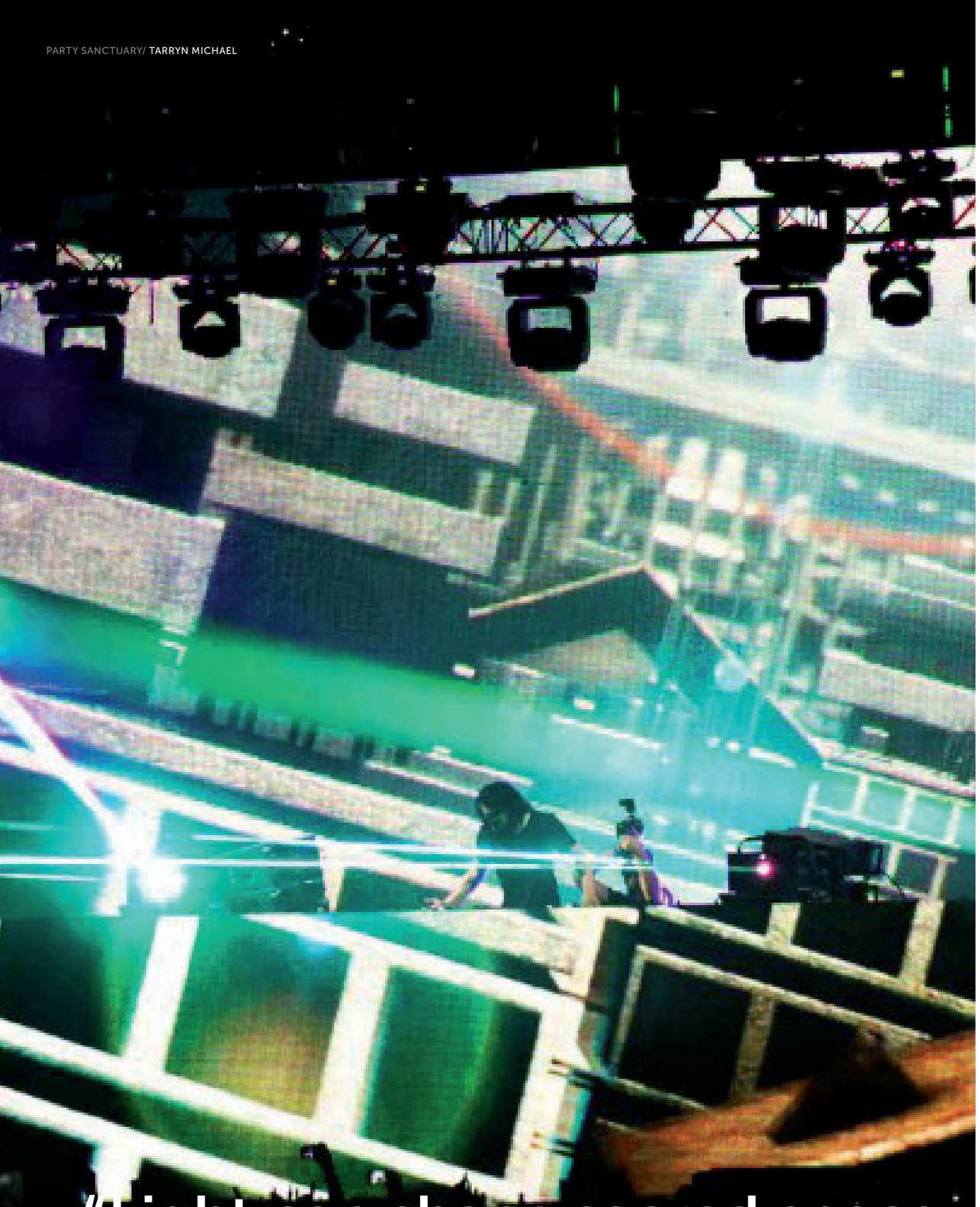


“Light can shape sacred space and invoke the ineffable” (Britton, 2012: 114).

1.26

...nature surrounds the user, the user cannot be harmed, a cloud is present, birds are present, reality is not part of the state- one is lost in space and time.

Theme of ineffable

LIGHT

“Light can shape sacred space and invoke the ineffable” (Britton, 2012: 114). The sanctification of the ‘Party City’ relies on its activities. The cloud and the activities which occur below are in separately bound. Today sacred experiences have been forced to the edges of our modern lives. Modern architecture has distanced itself from the sacred. The aim of this thesis is to challenge that distance by constructing an ineffable environment through the elements and substances discussed in chapter 2: water, fantasy, flight and foliage.

CELEBRATION, MEDITATION

The dichotomy of uses that the design offers is both a place of mediation and of celebration. Meditation because of the seclusion it subtly allows for from the loud highway through the natural elements it possesses: like plants, birds and water. It is a place of celebration because of the spectacle of the ‘cloud’- exerting sound waves, water vapour and light. The design does not attempt to create or construct the sacred but rather, as Diana Eck puts it: “enable the users to see it; and in that sense architecture is a revelatory art. It is training the eye to see, training the soul to deep seeing.”(Britton, 2010:114)

CIRCULATION

The Hindu ‘Parikrama’ is a movement path surrounding something, these often uninterrupted circumambulatories is the only entry for worshipers. “Worshipers approach the inner sanctum through successive circumambulatories, where what light there is casts diffuse illumination” (Eck, 2010 :118) Circumbulation influenced ‘Party Sanctuary’ main circulation paths in that they too wrap around the destinations of the site-the Cloud and the Wetland. The ‘Circumambulatory’ of ‘Party Sanctuary’ is a journey for the ritual subject whom by occupying the five metre paths, passes through and past many thresholds. These are not always physical changes or doorways, but rather a threshold defined by its’ context- what one sees, smells, touches and hears. The process of entering the site is a journey of being betwixt or between. (Turner, 1969) (Britton, 2010).

Fig 1.26 **DJ Skrillex performing**: Photograph of the light projection, Nathan Thomas. 2013

Fig 1.27 **Eisenman memorial:** Photograph, Berlin, 2011

1.27

LOST IN SPACE AND TIME

Peter Eisenman speaks about this phenomenon in a piece about the ‘Holocaust Memorial’ in Berlin. Eisenman tried to replicate a feeling, from his past, for the visitors of the memorial to be linked to a young girl’s memory of her experience at Auschwitz when she recalled “...at that moment in space and time, she was speechless” (Eisenman, 2010:210)

It is difficult to create architecture that would entice this feeling among its users, but ‘Party Sanctuary’s’ approach in trying to achieve this lies in its sunken sanctuary. Once on the lowest ground of ‘Party Sanctuary’ one cannot see the highway, the sounds from the cars are diffused by the sound of water and constructed mound, nature surrounds the user, the user cannot be harmed, a cloud is present, birds are present, reality is not part of the state- one is lost in space and time.

1.28

Fig 1.28 **Hard and Soft**: Photograph taken whilst driving through the Karoo of the man-made pylon in the grassland, 2013

Fig 1.29 **Hard and soft ii :** Photograph of a windmill lightly touching the landscape,Zwagershoek farm,the Karoo, 2013

"The unknown is the threshold of their minds; wonder is a common companion, but mysticism is not conspicuous" (McHarg, 1992)

Theme of Hard and Soft

BIOPHILIA

"The earth is our sustainers, the chain of ecologic survival. Renew ability is key to our human range and our prime resource for architecture". (Almusaed, 2006). Biophilia is the affiliation that humans have with nature. Man-made infrastructure makes use of the natural landscape taking away from it without any return. Concrete is poured and the natural elements often die. Sadly man's affection towards plants and other living things is often forgotten, although many humans do not only want to work, eat and play in a constructed building but seek the health, well-being, comfort and invigoration that only comes from natural surroundings. "Biophillic architecture offers an exciting opportunity to achieve environmental, moral, social and economic benfits." (Almusaed, 2006:1) Where is the place for nature in man's world? What are the different tolerances or intolerances of several environments to human use?

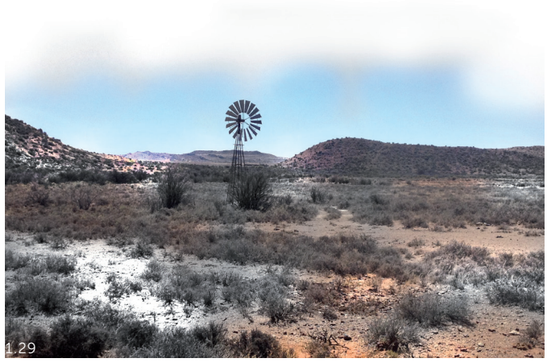
THE BEACH

The beach is an extremely tolerant zone. The tides clean away the remains of man's footprint. The animal-life that inhabits this environment hides safely away in the sand from man's damage. "So the beach is tolerant to all the happiest of uses—swimming and picnicking, the making of sand castles, fishing and sunbathing". (McHarg, 1992:13).

THE DUNE

There are several types of Dunes that make up the network of dunes that occur naturally at the ocean-some tolerant to human footprint and others not. In constructed man-made dunes they are known as defences. According to the Dutch, their three lines of dikes/defences are comprised of the first dune which faces the sea called the 'Gaurdian' (Waker), the second the Sleeper (Slaper), and the last defense is the Dreamer (Dromer). Naturally these would be separated into the primary dune, trough, secondary dune, back dune, bay-shore, and bay. (See fig 1.30) (McHarg, 1992)

Constructed dunes appear in this thesis proposal as an edge condition to 'Party Sanctuary' valley. The defences that this proposal implements are: the Primary Dune (The Guardian) which protects the users from the existing eight metre drop, and which protects 'Party Sanctuary' from uncontrolled human visitors to the site as well as acts as a protection wall for birds flying across the N12 highway from the natural wetland north of the site; The Secondary Dune (Sleeper) will be constructed as islands on the lowest level of 'Party Sanctuary' inside the pool of the constructed wetland. The troughs occur as water bodies between the island dunes which are protected from storms, wind and blowing sand. The plants that are present within the troughs belong to the process of the constructed wetland which cleans the water at 'Party Sanctuary'. (McHarg, 1992).



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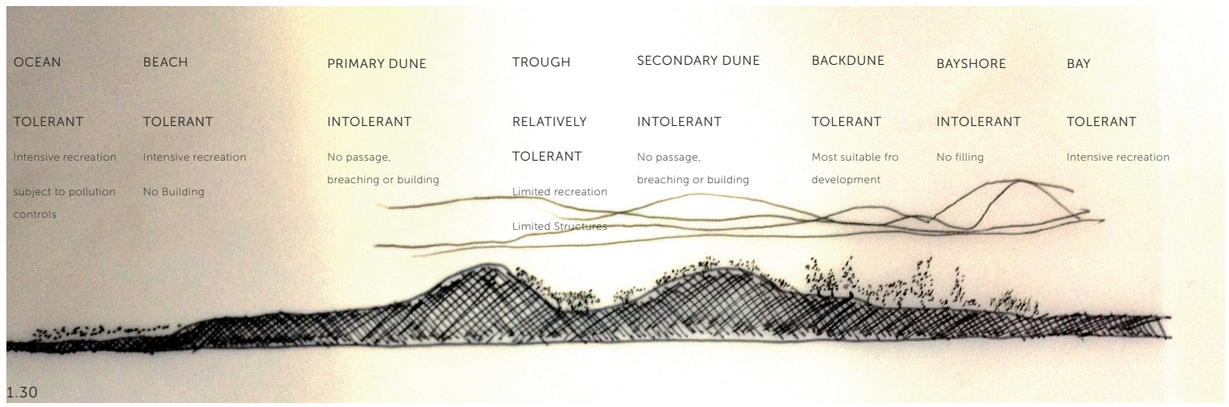
The beach is an extremely tolerant zone. The tides clean away the remains of man's footprint.



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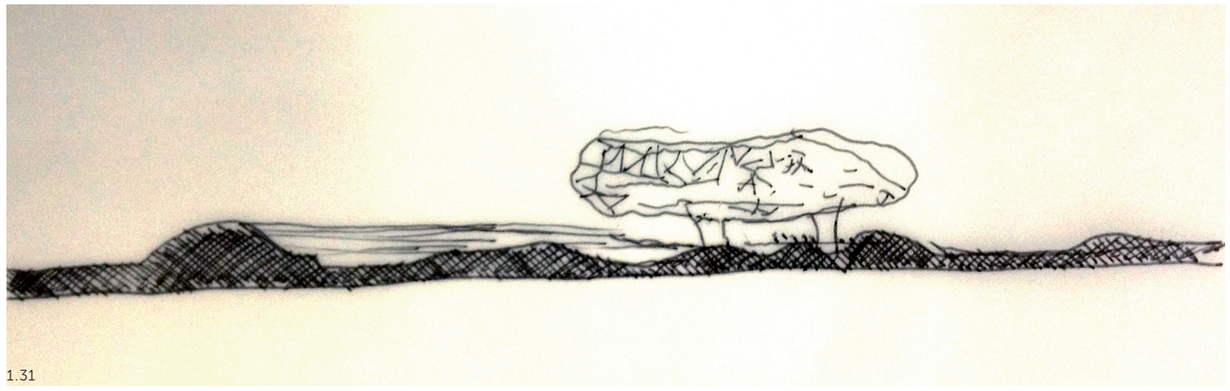

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…"rediscovering nature's corollary of the unknown in the self, the source of meaning." (McHarg, 1992:121)

THE LAYERS

The layers that a particular environment is comprised of can either be described as simple or complex. A simple layer would be a sand dune because of its few inhabitants including specific grasses, but mainly sand. A complex environment would be a forest, because of its development procedures, the various inhabitants of species and their homes. The forest is a complex evolved zone that has grown on top of a simple sand dune. "If you multiply simplicities, the result is uniformity; the product of complexity is diversity." (McHarg, 1992:119) The transformation of the environment into the other reveals a creative process, an evolution. This process of growth and emergence is what is important to this thesis. The following questions reveal the architecture: Can an environment be constructed to mimic natural processes (soft)? Can man (hard) lightly touch the surface of the soft? Where is the overlap of the hard and soft and what kind of threshold/ liminal zone is achieved? (McHarg, 1992)

Fig 1.30 **Limiting Factor Gradients**: Drawing after Ian L. McHarg, 2013
Fig 1.31 **Artificial dunes:** Design sketch of the artificial dunes on site, 2013

Party Sanctuary will, through [ritual, performance, music and design], create a landscape and structure that can house a world of greenery, youth, celebration, future elements and beauty...

Conclusion

PARTY SANCTUARY

O.R. Tambo International Airport is in a phase of renewal. The plans for the aerotropolis will make this suburban gateway a true place of arrival. This new nucleus for the city of Johannesburg will be the place where its populations will circulate its surrounding infrastructure through economic activities, pleasure hubs and residential abodes. Wild Waters and its vacant neighbouring site (Party Sanctuary) need to be incorporated within this framework. Its proximity allows for this to be achieved. I believe that Party Sanctuary can change the perception of the city's edge in the public users' mind. These users will not only be international, but also local and predominantly the youth of Johannesburg.

Party Sanctuary will, through [ritual, performance, music and design], create a landscape and structure that can house a world of greenery, youth, celebration, future elements and beauty-a much anticipated and necessary 'beach' for our landlocked city. Dramatic additive design methods will allow for this [other/better/younger/greener] world.

Theories based on spaces of liminality, threshold and transformation, can aid my process in design to achieve meaning in architecture. The role of architecture in this design thesis will take the anthropological studies mentioned and use this for the function, size, aesthetics and public realm to achieve a piece of architecture that enhances spiritual culture, inclusiveness, freedom, and joy for all who venture into and around the site.

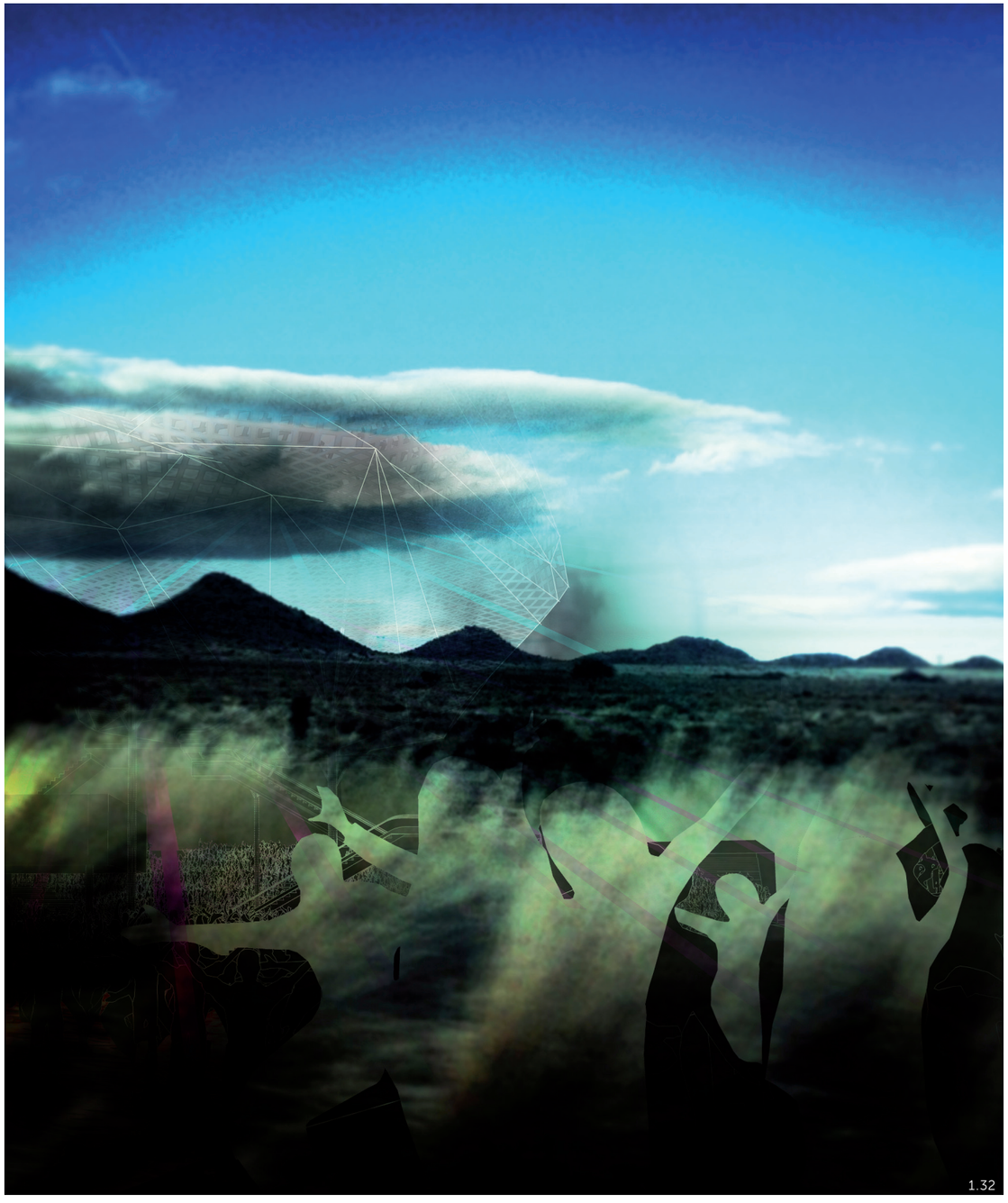
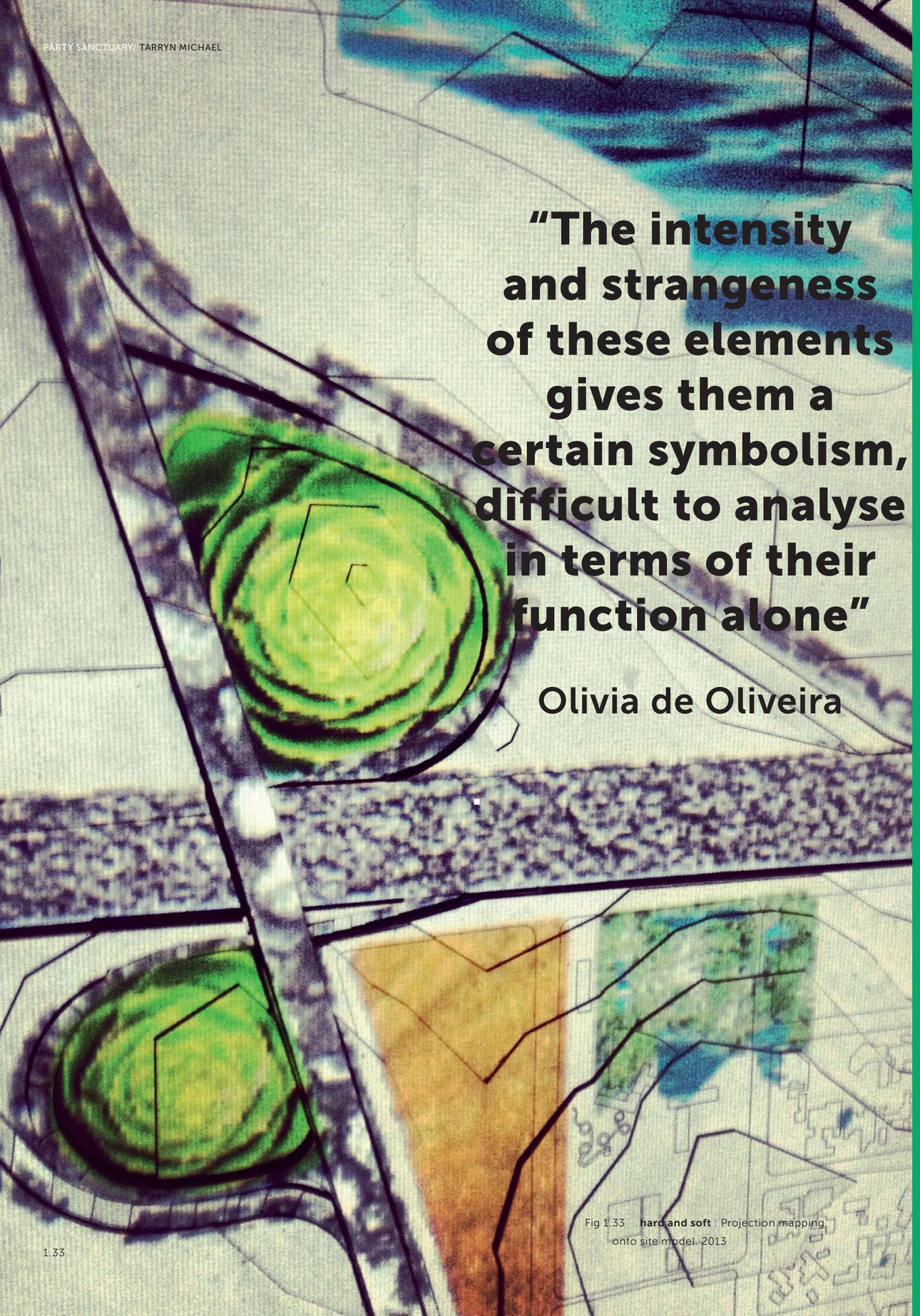


Fig 1.32 **Dancing in nature**: Montage including photograph, the Karoo. 2013



“The intensity and strangeness of these elements gives them a certain symbolism, difficult to analyse in terms of their function alone”

Olivia de Oliveira

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Fig 1.33 **hard and soft** : Projection mapping onto site model. 2013

B.
Reflection: the Construction of Liminal Space

B.
Reflection: the Construction of Liminal Space

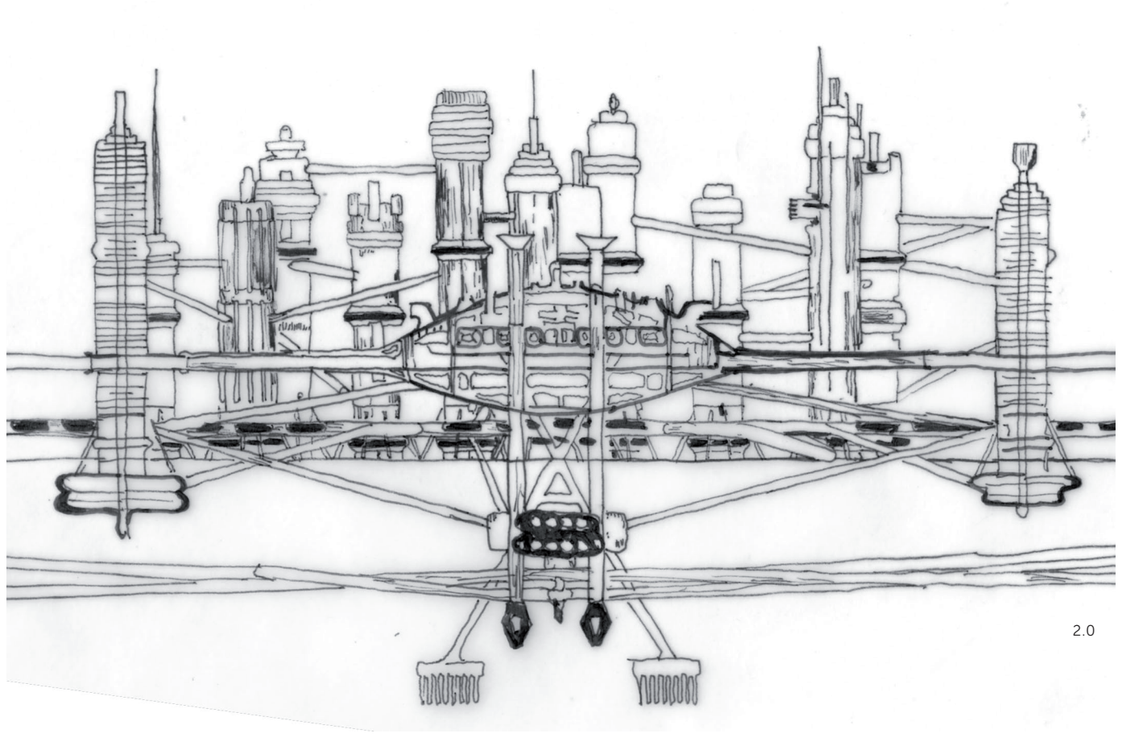

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Fig 2.0 **Interchange**: Study of a multi-transport mode, after Ron Herron, Warren chalk. Archigram, 2013

Fig 2.1 **Living City exhibition:** plan of 'gloops' after Archigram group, 2013

…"create a new spirit and new understading of architecture"-Hans Hollen.

a Case Study, Archigram

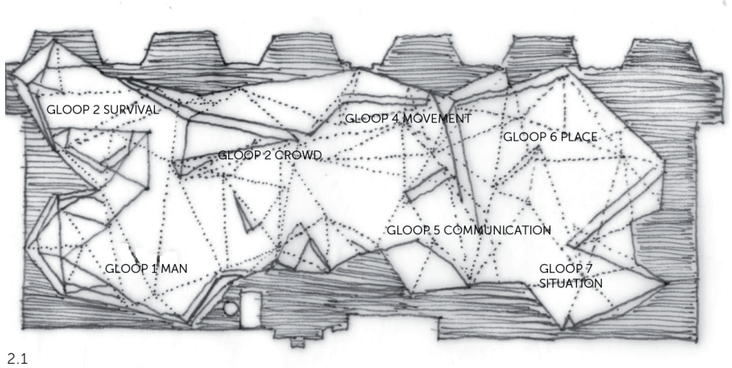
Archigram's publications have given this thesis some of its richness. In 1961 a small group of architecture graduates became unfulfilled with convention and created an 'Archigram' which consisted of several experimental projects. Some of the influential projects include: the 'Walking City', the 'Plug-in City', the 'Living Pod' and the 'Instant City'. In a nutshell their beliefs proved to question the existence of architecture as buildings at all—"I have a desire for the environment to be invisible in order that I may be free from the pornography known as buildings…" (Burnham, 1972: 113) the event/ landscape layer of this thesis could be called 'Party City'.

APPROACH

The approach that both the 'landscape' of this thesis and that of Archigram's experimental projects is one where event becomes the architecture whereby its different layers of experiences by the users and their movements create an ever changing habitat. The scattered elements of pathways, trees, services and water all have a relationship to the sun, air and sky. All elements are interdependent of one another. This interdependence will be elaborated on later through case studies of this thesis's second thematic of 'hard and soft'. The ephemeral aspects of lighting, sound and dance also define architecture as a role of transient spectacle.

GLOOPS

Like Archigram's separation of defined areas into 'Gloops' (loop- enclosure of a soft profile) What are the 'gloops' that are present in this thesis? These can be defined in the same way that Archigram defines them: survival, crowd, movement, man, communication, place and situation- some pertaining to the large event to and that of the everyday behaviour of the cloud.



2.1

...aeroplane flying above the crowd every half an hour; music climaxes; elevated heart rates; and projected imagery, all of which create meaning in the architecture.

SURVIVIAL GLOOP

The survival of the ritual subjects at the events is a pre-established stamina instilled within the youth of Johannesburg. It builds up in the time in between dance festivals and is realised in their endurance on the day. Like the survival kit that Archigram establishes for man in his 'survival gloop' so too does the youth of the dance festival possess in order to survive the conditions that occupy, this kit includes: food, drink, drugs, clothes, cars, makeup, sunblock and money.

CROWD GLOOP

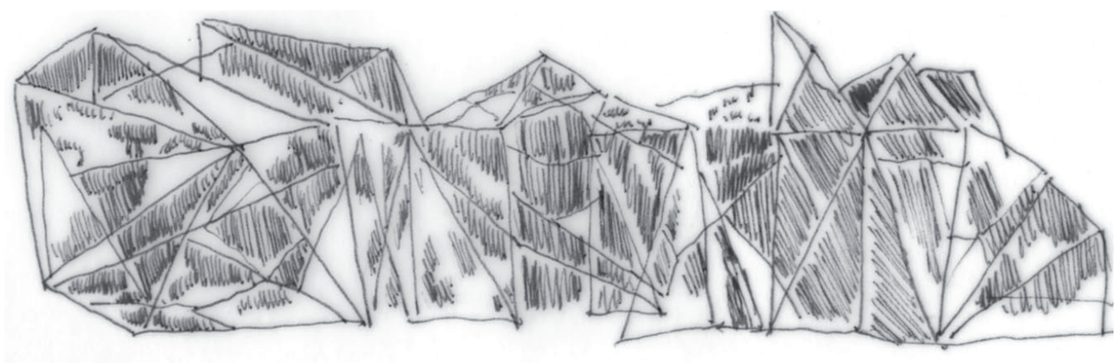
"An indication of the kaleidoscopic coming together of all manner and types of man and the way in which they interact upon one another in the shared experience..." (Cook, 1972:20) The shared experience is a conglomeration of the sounds, the sights, the high and the low-an autonomous crowd; a "communitas" (Turner, 1969:96) When the crowd's mood moves from a low to high, there is the in-between state of limbo and it is then that the crowd no longer has a status, but it is also then that a social bond is created among the 'communitas'- a remarkable homogeneity. (Turner, 1969) (Cook, 1972)

MOVEMENT

Patterns of action of the users have been determined through observation of one user group-the youth culture of Johannesburg. Weight, height, sex, race, gender, age and class are all informants of these patterns. Sketch/map. Freedom of movement becomes a driver in design. Objective movement determines spatial quality of the flow of people, be it "direct or multi-directional movement, purpose movement or psychological movement." (Cook, 1972)These objectives have the power to affect the splitting up or isolation of the crowds in the provided environment. These cannot be labelled on a plan but only attain a status when the 'ritual subjects' activate these areas. It is momentary, liminal and forever changing.

SITUATION GLOOP

According to Archigram a situation gloop refers to changes within the environment and the activities linked to these. Situation can be speed, direction and classification of traffic of cars and people which are very important. "...are as important, possibly more important, than the built demarcation of space." (Cook, 1972) Party Sanctuary's important situation 'gloops' present themselves as an aeroplane flying above the crowd every half an hour; music climaxes; elevated heart rates; and projected imagery, all of which create meaning in the architecture. In terms of general dance music, for example in house music, a house beat is comprised of a kick drum, snared drum and hi-hats which creates a standard rhythm. There are percussive elements such as Toms, Cymbals and Cangos to name a few which give the rhythm more structure. Every four bars which are comprised of four beats, there will be a change or climax or an addition of percussion. These changes or climaxes are what the ritual subjects look forward to and its effects can be felt throughout the crowd like a reaction wave.



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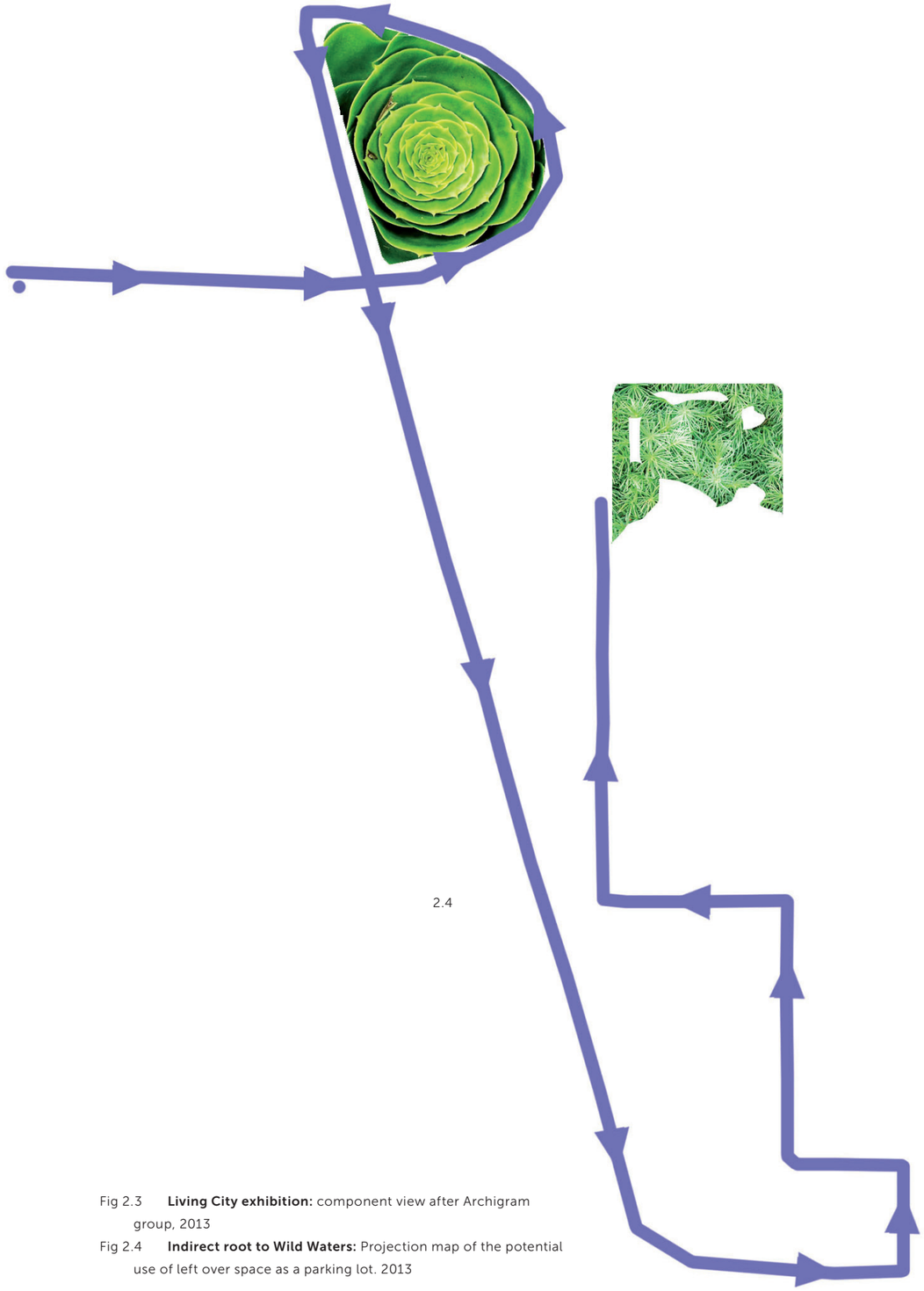

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Fig 2.3 **Living City exhibition:** component view after Archigram group, 2013

Fig 2.4 **Indirect root to Wild Waters:** Projection map of the potential use of left over space as a parking lot. 2013

Site Location

BOKSBURG

The site I have chosen lies in Boksburg, east of Johannesburg. The specific site is locked in on two sides by the N12 highway and a main North South connector road called Rondebult. Essentially Rondebult connects the North of Boksburg (O.R Tambo International Airport) to the South of Boksburg (Boksburg Civic Centre) terminating in Main reef Road which used to be the main gold rush between Johannesburg city and Boksburg's Gold mines.

Historically, Boksburg's landscape was primarily used for mining of gold and coal. Because of the production of manufacturing in Boksburg's industrial areas and the reliance of Johannesburg's economic stature on this industry, commuting from the city centre to Boksburg became a priority. Highways and roads were constructed for transport of goods via trains and trucks. These highways, like the mining areas are examples of land uses that were constructed without any return to the land. They take up space and provide little to no social or public function for the dwellers of the area. They have become large desolate thresholds. My intention has been to breach one of these abandoned thresholds and to allow for a thickening of the threshold to occur in order to create a rich landscape of layers of substances and elements.

Witkoppi dam

O.R Tambo International landing strip

Natural Wetland

N12 highway

Site

Rondebult Road

Fig 2.5 **Water bodies and highway:** Witkoppi Dam, N12 highway and Homestead Lake,aerial photograph [online] <www.ekurhuleni.gov.za> [May 2nd 2013]

Fig 2.6 **Water bodies and highway zoomed in:** Witkoppi Dam, N12 highway and natural wetland,aerial photograph [online] <www.ekurhuleni.gov.za> [May 2nd 2013]

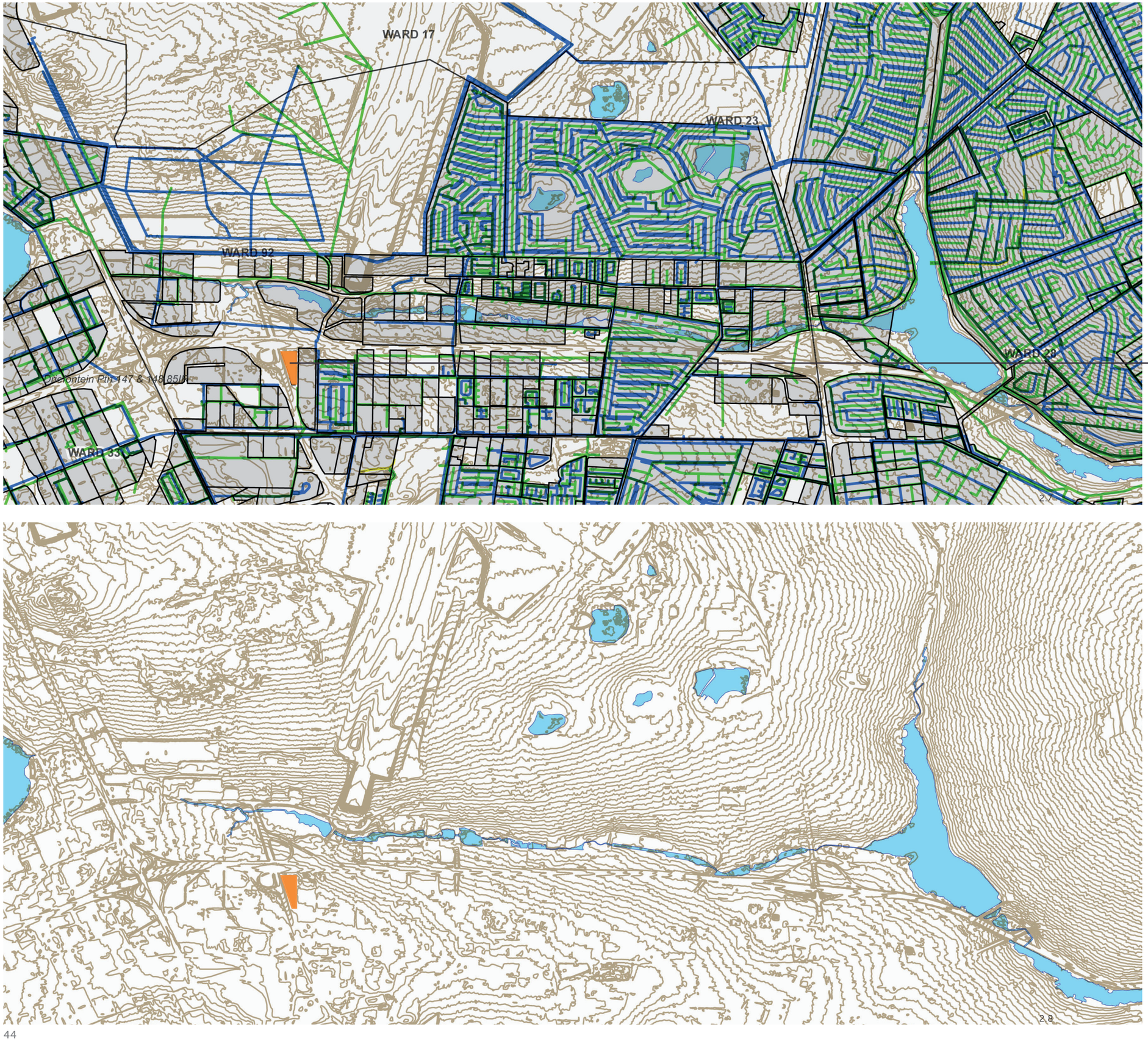

Fig 2.7 **Overlap:** Dams and Pans, Water network, stands and contours [online] <www.ekurhuleni.gov.za> [May 5th 2013]

Fig 2.8 **Overlap:** Dams and Pans and contours [online] <www.ekurhuleni.gov.za> [May 5th 2013]

Fig 2.9 **Overlap:** Dams and Pans and stands [online] <www.ekurhuleni.gov.za> [May 5th 2013]

Fig 2.10 **Overlap:** Air Water and Noise [online] <www.ekurhuleni.gov.za> [May 5th 2013]

Fig 2.11 **Overlap:** Hydrology, ecology and contours [online] <www.ekurhuleni.gov.za> [May 5th 2013]

Fig 2.12 **Overlap:** Geographical areas [online] <www.ekurhuleni.gov.za> [May 5th 2013]

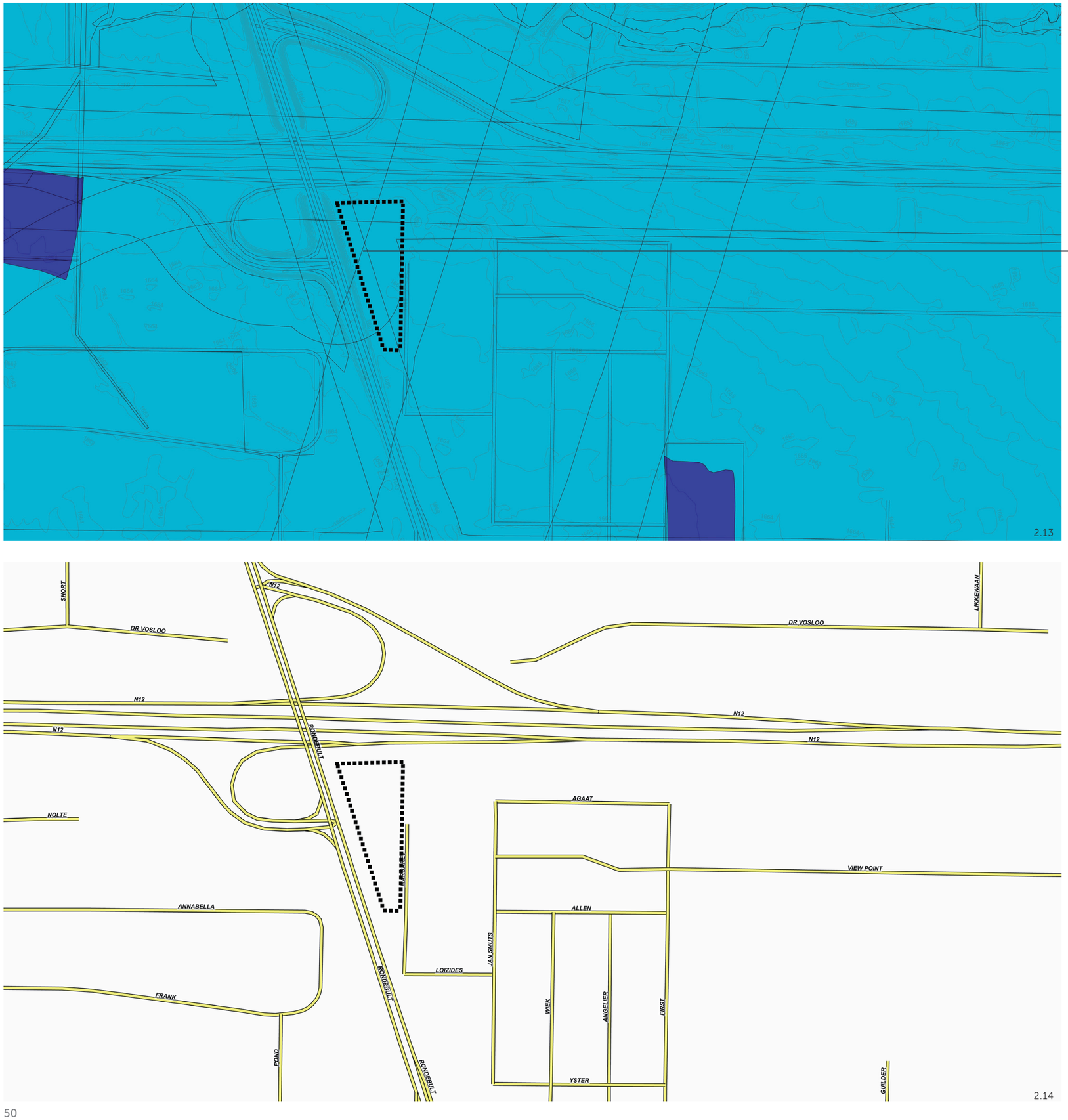

Fig 2.13 **Overlap:** Air Water and Noise zoomed in [online] <www.ekurhuleni.gov.za> [May 5th 2013]

Fig 2.14 **Overlap:** Roads [online] <www.ekurhuleni.gov.za> [May 5th 2013]

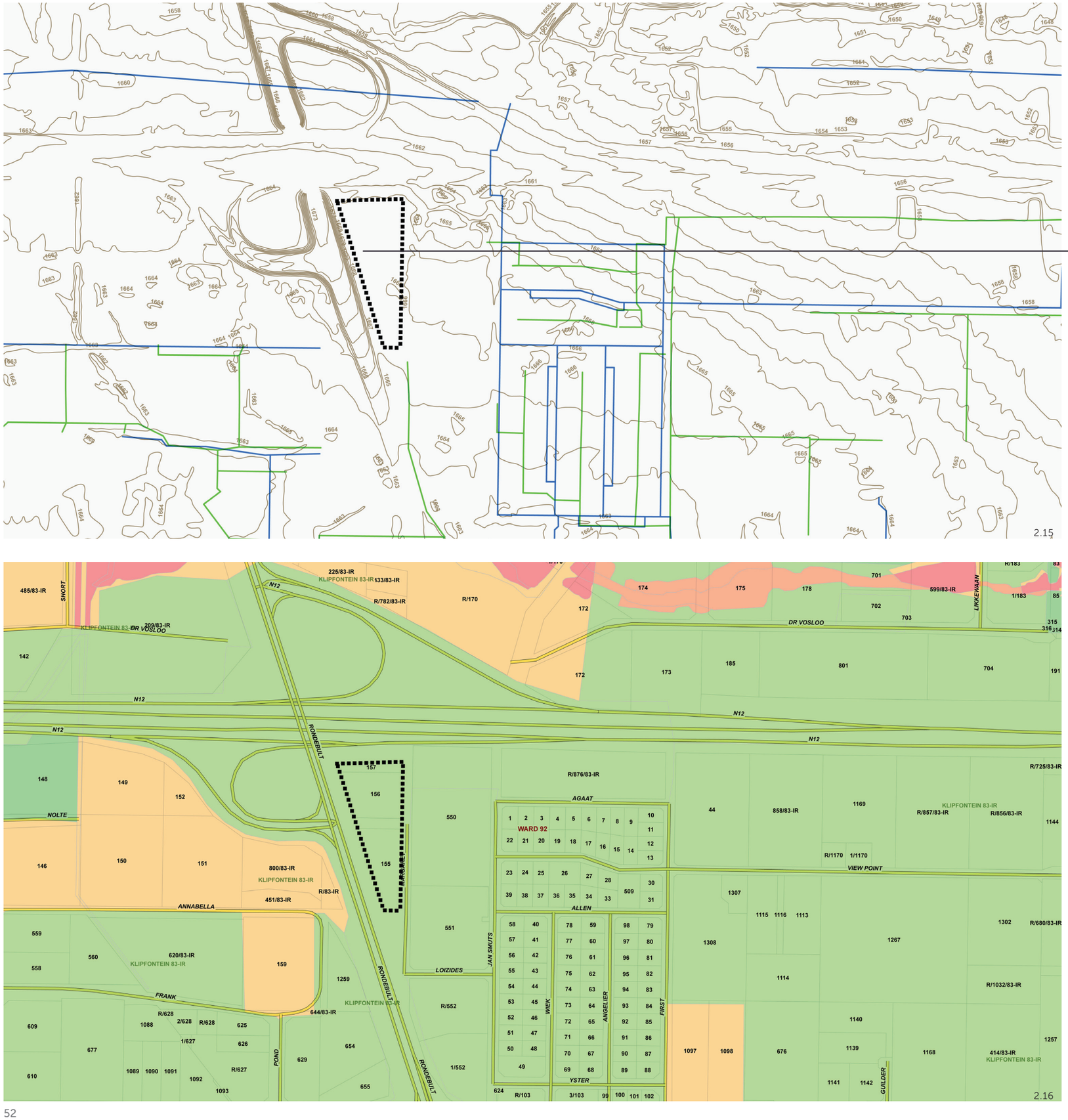

Fig 2.15 **Overlap:** Sewer, water and storm water [online] <www.ekurhuleni.gov.za> [May 5th 2013]

Fig 2.16 **Overlap:** Sensitivity, stands and streets[online] <www.ekurhuleni.gov.za> [May 5th 2013]


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Fig 2.17 **Aerial tile:** View of site and immediate context, GIS Council, 2013

Fig 2.18 **Wetland across the N12:** photograph taken from northern side, Boksburg.2013

Fig 2.19 **N12 highway:** photograph taken from the bridge on Rondebult Road, Boksburg. 2013

Fig 2.20 **Site portion:** photograph taken from Rondebult bridge looking towards Wild Waters.2013

Fig 2.21 **Site from slide:** photograph taken from Wild Waters slide looking at Rondebult.2013

Context, a section through Wild Waters


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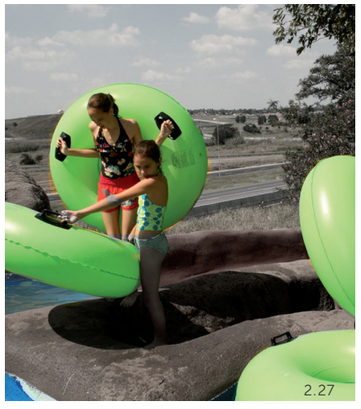
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Fig 2.22 **N12 higway:** photograph taken from Rondebult Road, 2013

Fig 2.23 **Edge condition of the northern portion of the site:** photograph taken from Rondebult Road, Boksburg.2013

Fig 2.24 **Wild Waters slide parallel to highway :** photograph taken inside wild waters complex adjacent to site. 2013

Fig 2.25 ***Swedish house Mafia performance*:** photograph taken by Nathan thomas, H_20, Boksburg. 2013


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Fig 2.26 **Wild Waters:** photograph taken from the slide, 2013

Fig 2.27 **Tube ride:** photograph taken inside complex parallel to N12 highway, Boksburg.2013

Fig 2.28 **Nicci Beach- day bar in Wild Waters:** photograph taken from mini dance floor. 2013

Fig 2.29 **Slide:** photograph showing children running towards stairs, Wild Waters, Boksburg. 2013

Fig 2.30 ***DJ Skrillex performance*:** photograph taken by Nathan thomas, H_20 event, Boksburg. 2013

2.31

What interests me about architecture? The Natural:water (soft). The man-made: structure (hard). Where is the overlap-liminal zone? Movement? Urban Oasis? What do you see from the air? - taken from one of my *'post-it'* notes

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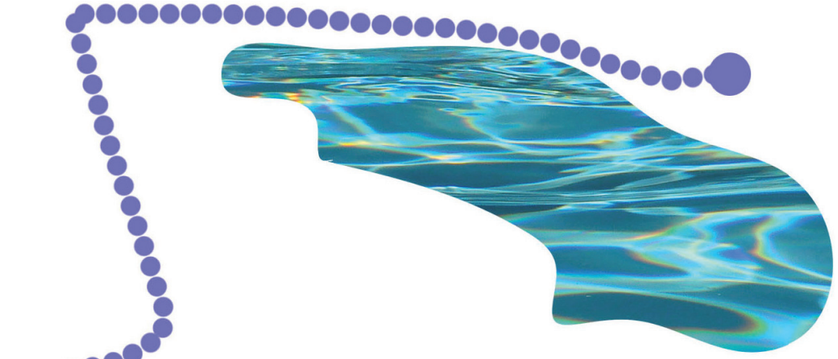

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Substances and Elements

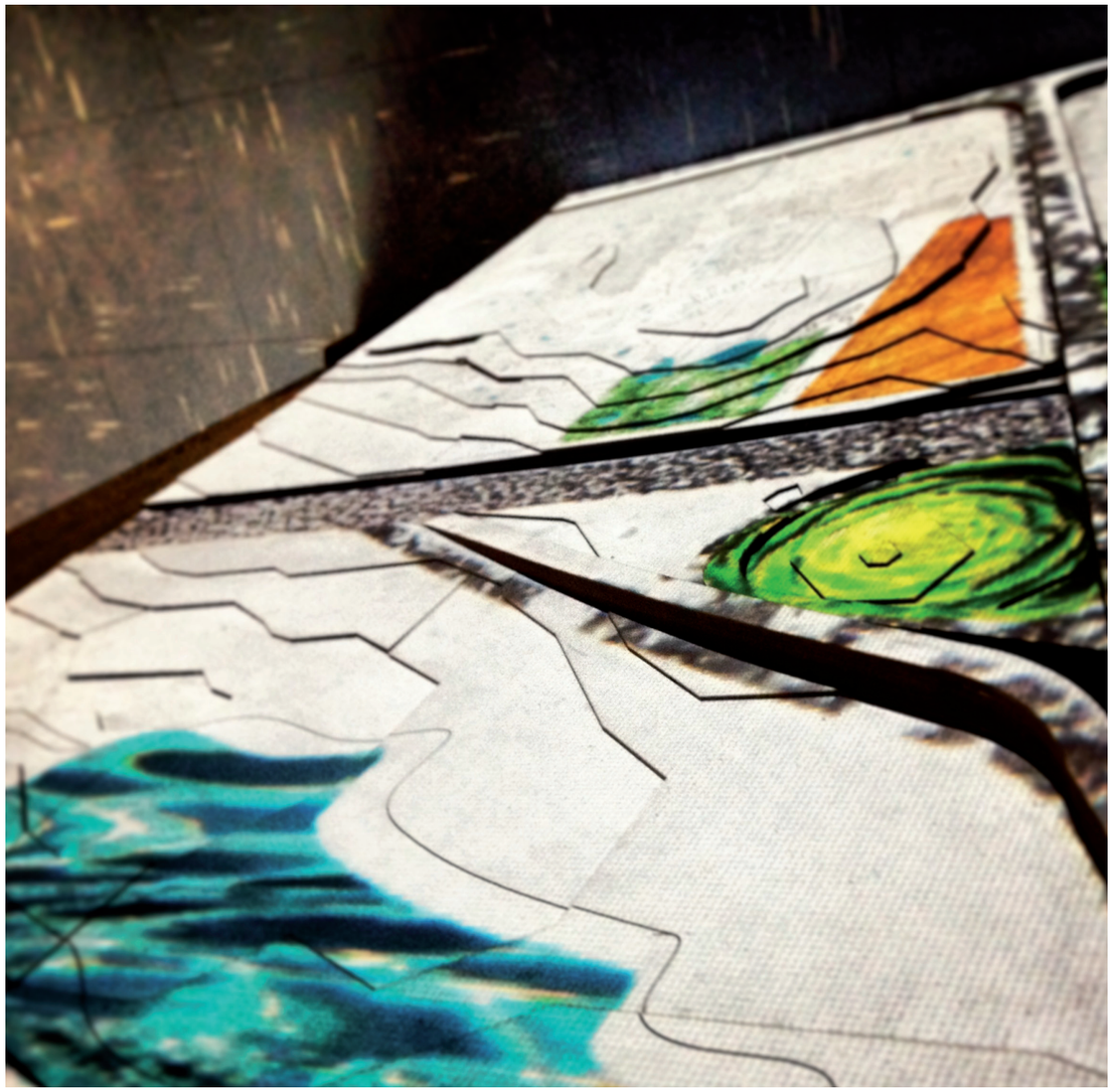
SUBSTANCES AND ELEMENTS

There are existing elements that contribute to the manifestation of the open site I have chosen. The elements and substances I am about to embark on, are those that are found on or near my site. Through observation by photography and first-hand experience, I was able to capture the magic in the existing which became part of my method of design. It was the existing elements that excited me to begin to mould the environment that I wish to create. Observation happens through many lenses-a camera, a projector and the naked eye. I would like to compare here the lenses which I saw through, to the states of mind that I was in. The different states are closely linked to the thresholds in which these observations occurred.

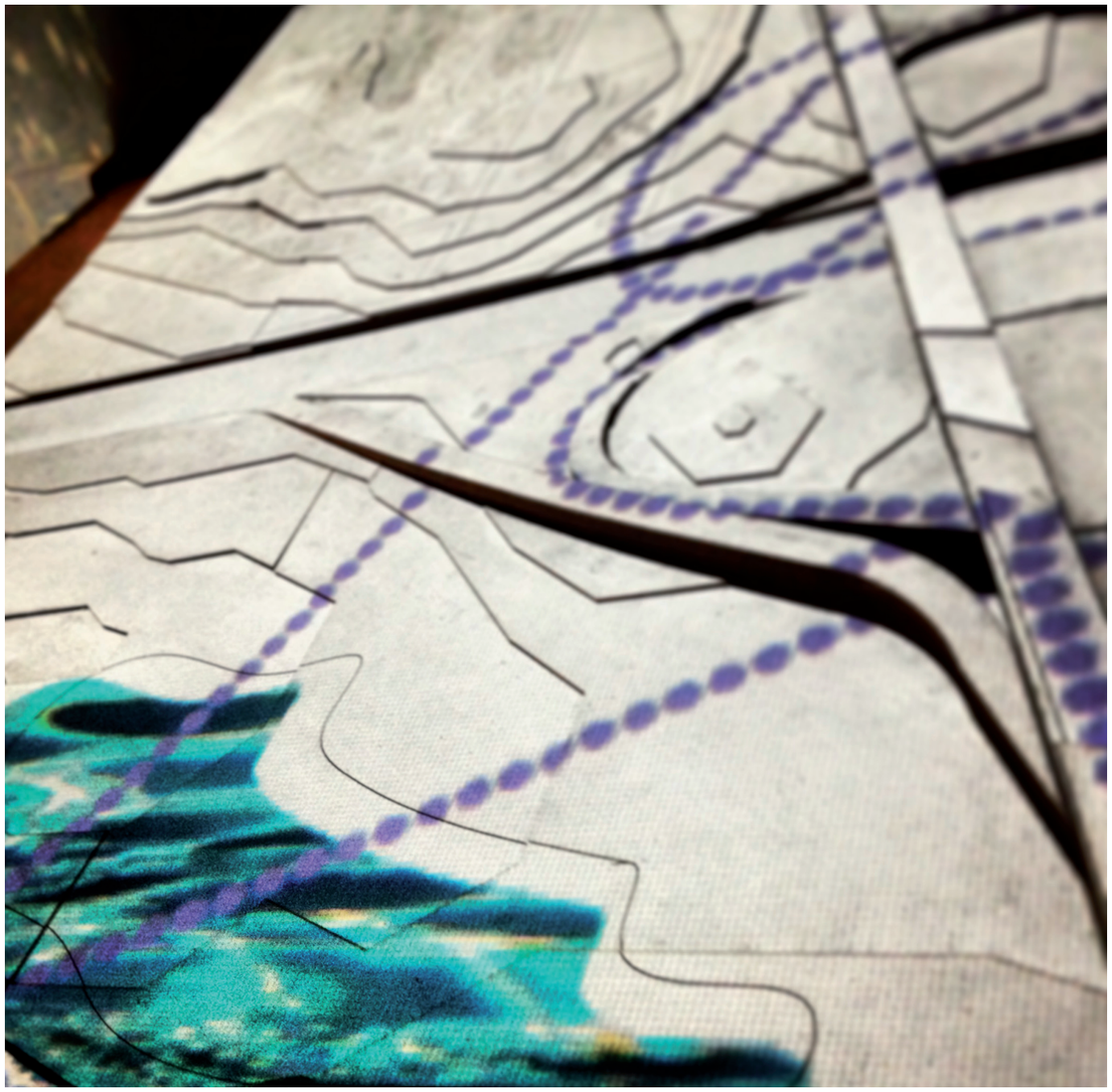
Fig 2.32 **Sketch plan:** establishing the heart of the landscape, 2013

Fig 2.33 **Convulated:** projection mapping image showing convulated paths and human movement around the site.2013

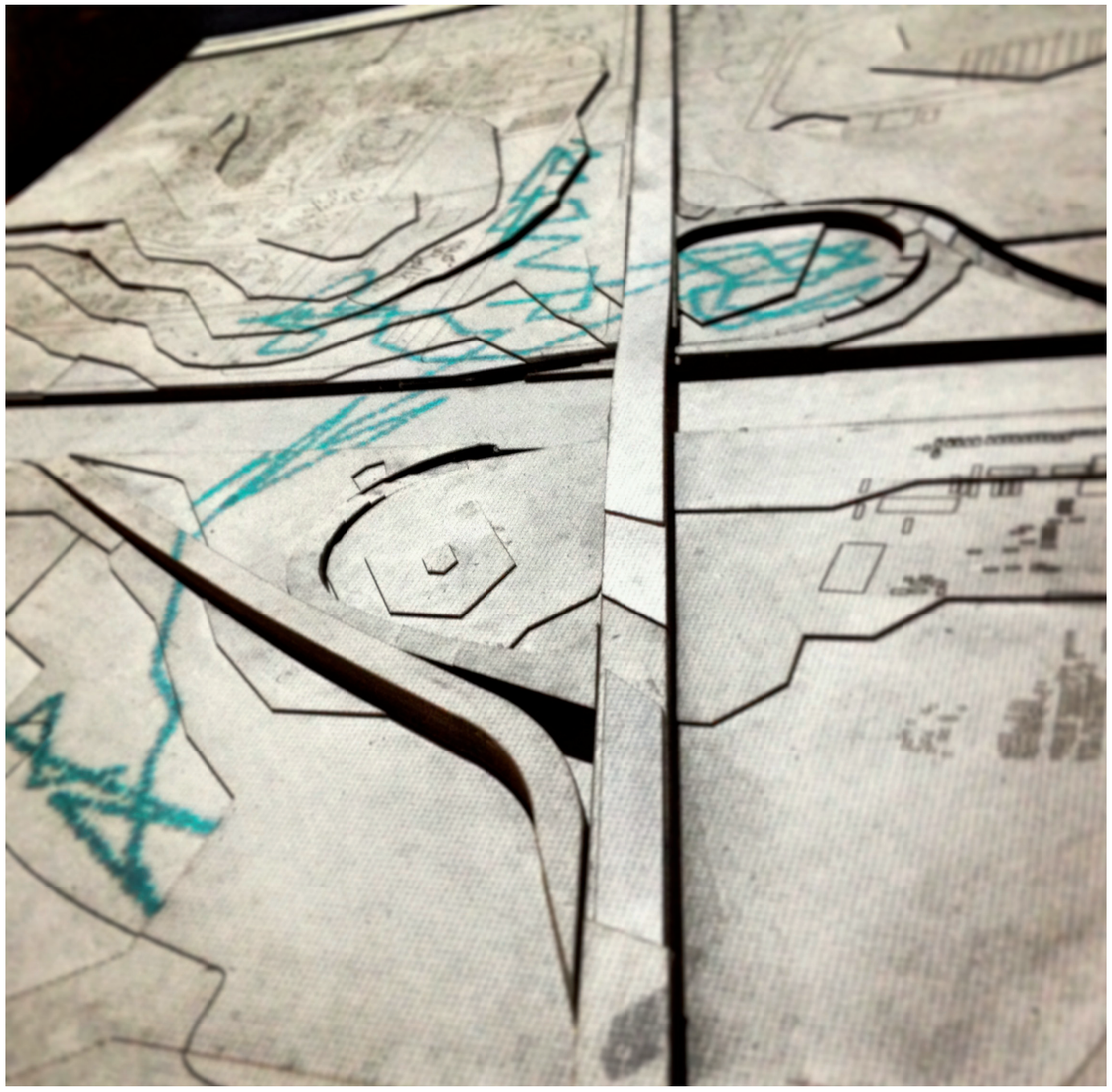
Projection Mapping



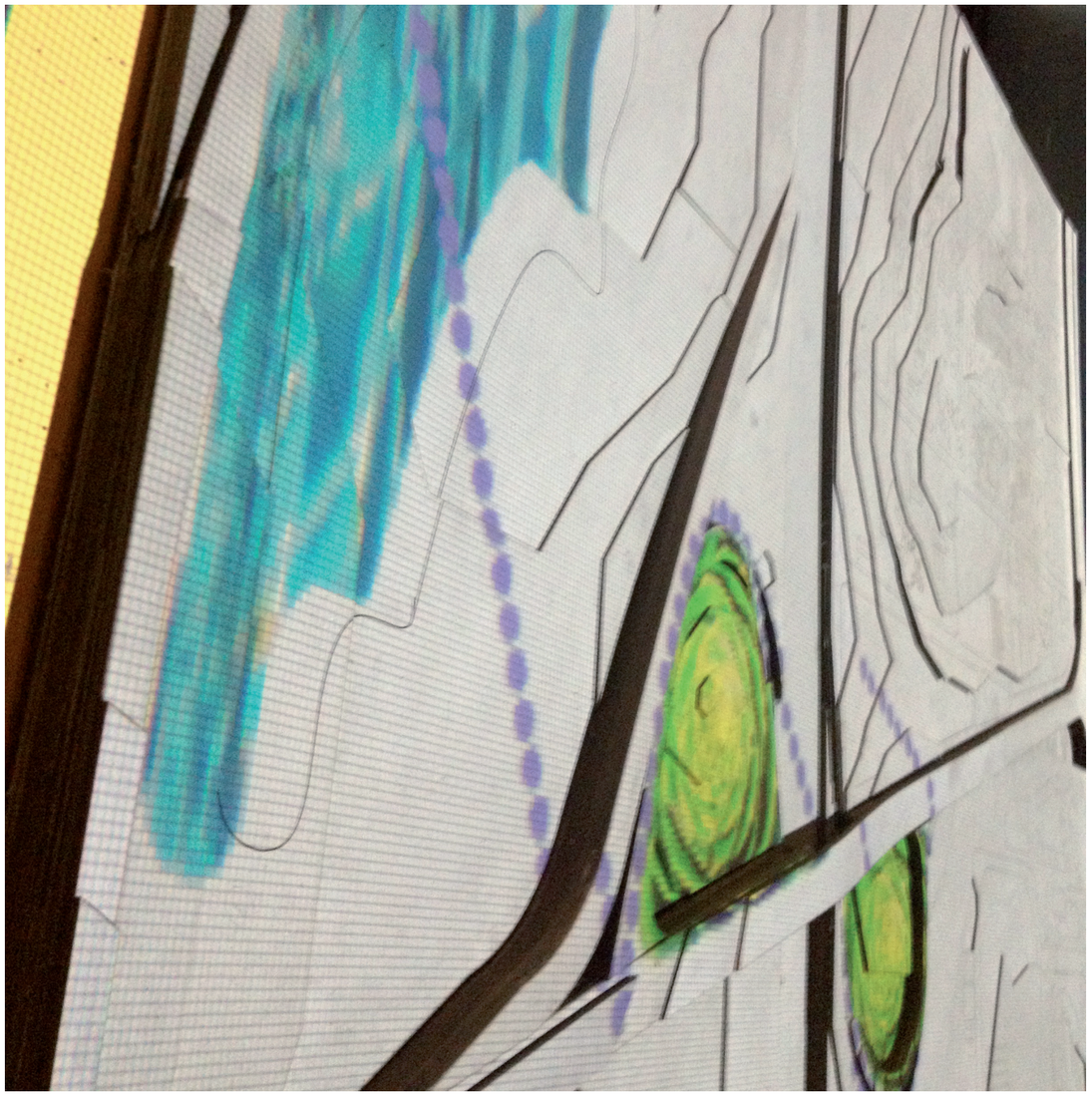
Elements: Projection onto site model, natural wetland, site, highway and green landscape 2013



Movement: Projection onto site model, wetland, two types of convulated movement patterns. 2013



Movement ii: Projection onto site model, potential movement patterns of both man and birds, 2013



Movement: Projection onto site model, wetland, one type of convulated movement pattern. 2013

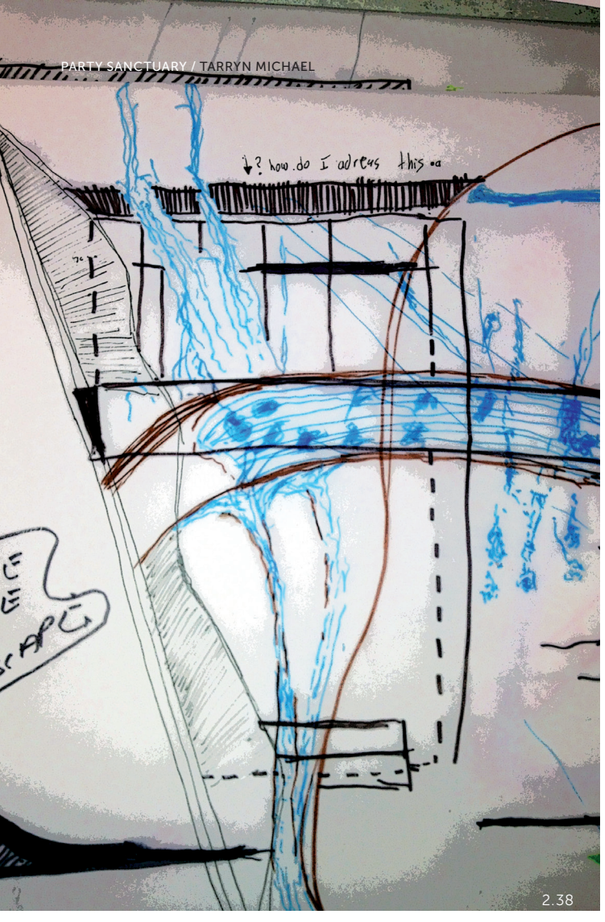


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Fig 2.38 **Water movement:** Early sketch depicting the waters flow on the site. Authors own, 2013

"Water is life's mater and matrix, mother and medium. There is no life without water." Albert Szent-Gyorgyi

WATER

Boksburg has many pockets of water-some natural and some man-made. These include the wetland just north of the site, Witkoppie Dam north-west of the site, Homestead Lake east of the site and Wild Waters water park directly adjacent to the east of the site, and not to forget all the tiny pockets of swimming pools hosted by the residential home owners just beyond Wild Waters. This substance falls naturally onto the site because of the natural topographic landfall terminating into a narrow valley which runs from the south portion of my site to the northern portion which abruptly terminates where the site meets the N12 highway.

WATER AND DANCE

The substance of water as a visible fluid in an environment stimulates the user's senses by sight. When ones feet are emerged in shallow water, the user's senses are stimulated by touch. Music can be added to the equation to result in an experience of pleasure that is felt by three of the senses in an aesthetic, tangible and audible manner all equating to an exhilarating explosion felt by the individual- a liminal experience.

WATER AND WELLBEING

Movement in this substance results in an exercise called swimming. Swimming is not only a child's play or summers fun, but because it is denser than air, exercises in water results in harder work being done. Swimming is an aerobic form of exercise and therefore increases cardiovascular activity ultimately resulting in psychological well-being and reducing depression. The rhythmic movement which occurs off land in a natural substance provides humans with a means of refuge.

...an aesthetic, tangible and audible manner all equating to an exhilarating explosion felt by the individual- a liminal experience.

2.39

Fig 2.39 **Explosion:** Oil on Canvas. 2006

...excitement is a common face; large eyes, open mouths, hands in motion and words.

WATER AND PLAY

Children, young adults and refined adults all find pleasure in having their skin caressed by water. A tendency among children, when connected to natural elements, evokes urgency within them to play. Excitement is a common face; large eyes, open mouths, hands in motion and words. In adding to the previous state of a child, a motion changer; gradient maker;- slide would quantify the excitement. This, in my opinion, is happiness. Natural and man-made seem to overlap. The overlap is the threshold that has developed because of these. That threshold is what is of importance to my thesis. (Grinder & Patil, 2009)

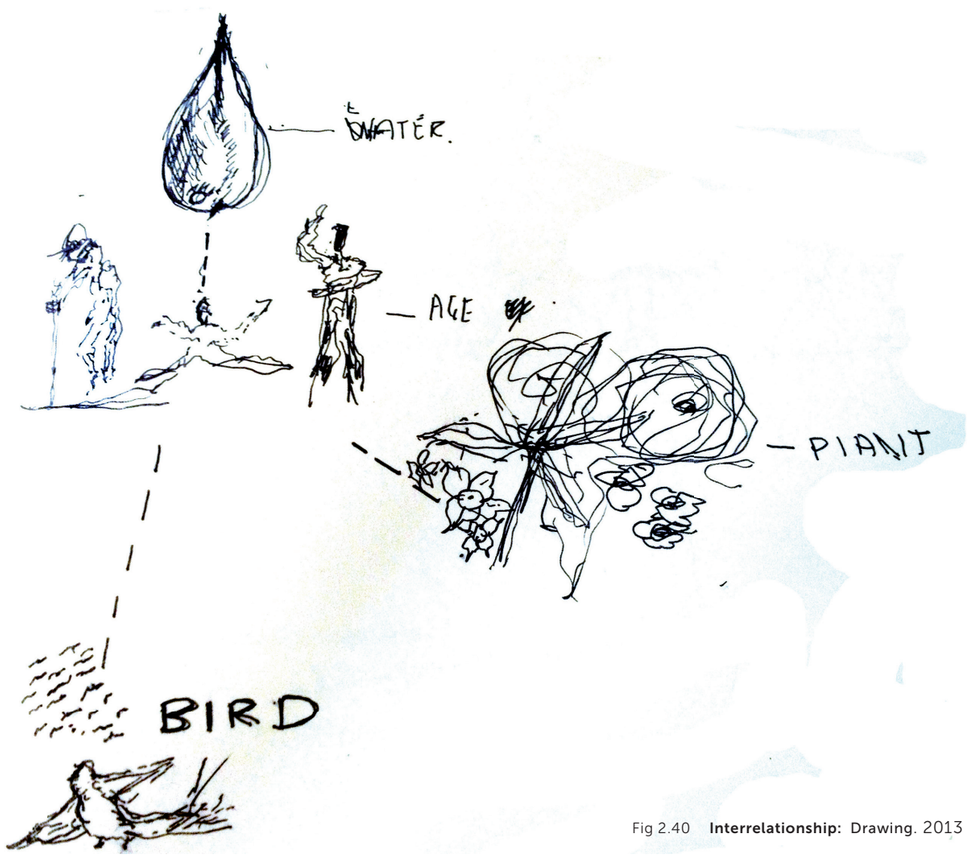
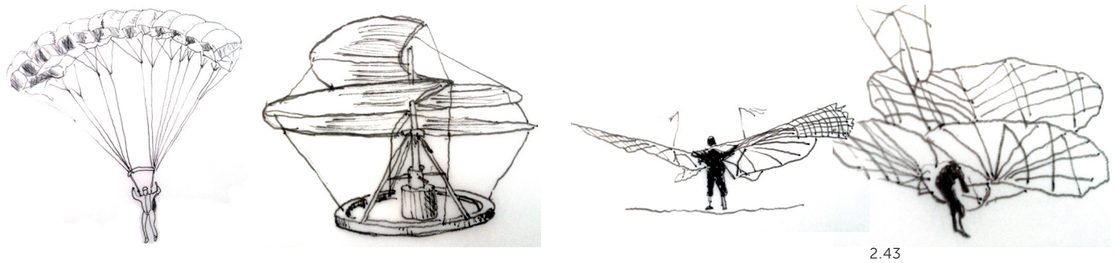


Fig 2.40 **Interrelationship:** Drawing. 2013

Fig 2.41 **Wild Waters:** photograph. 2013



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Flight

The theme of 'flight' in this thesis is comprised of both substances and elements. The substances of flight includes: the aeroplane which flies overhead; and the introduction of a cloud. The elements, in this case, are the forces of flight- thrust, drag, lift and weight. My intention is to use these as informants for design. I would like to make visible the aeroplanes flying over so that both sheltered and unsheltered areas have a visual of the extraordinary sight. The addition of the 'cloud' will use its form to attempt to create spaces that contribute in provoking the freedom that comes from flight. Immediately, words of importance are: height, transparency, above, below and float. (EADS Foundation, 2009)

Fig 2.43 **Man's obsession with flight:** Drawing after Leonardo da Vinci. 2013

2.44

Fig 2.44 **Flight at site:** Photograph, Boksburg. 2013

2.45

Fig 2.45 **What is seen from the air?:** Photograph, Wild Waters. Boksburg. 2013

1. Cloud: The cloud will present itself later in this document. It is an element of flight, not because of its direct metaphor to the skies but rather its' position and freedom that will come from its program and substances which move through it.
2. Flight: "Man's desire to conquer the skies like a bird is as old as humanity. Myths and legends in all cultures are full of inventive characters who can either fly, or who are carried up away by giant birds." (EADS Foundation, 2009)
3. helicopter: "in 1493, the famous artist, scientist and naturalist Leonardo da Vinci showed his powers of invention with the sketch of a helicopter". (EADS Foundation, 2009)
4. Parachute: Sir George Cayley, studied the dandelion seed and used this to create his design for a prachute because of where the gravitational centre is.

...all the while transporting one into a fantasy existing in nature alone...

Fantasy

The changeability of environments through the means of architecture and activities becomes a crossover by choice. Choice in action allows for a reaction. The experience of fantasy can therefore be derived from substances and elements. For example, during an event like that of a performance by a disc jockey, fantasy is experienced not only through the music but also through the physical environment. In observing the H20 youth cultural dance festival, fantastic bodies became apparent. These include humans, nature (landscape) and built form. A dancer elevated by a platform surrounded by a comfortable cage, dressed in feathers and head gear transported me to a carnival typology. A humble entrance to a bar, with the signage of 'nicci beach' in blue glowing light invites one into the unknown, transporting an approaching dweller to a chapel in Las Vegas. The ambient light enhancing tree structures of Wild Waters ignited a fantasy within linked to an isolated forest with insect and birds communicating, all the while transporting one into a fantasy existing in nature alone.

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Fig 2.46 **Nicci beach:** photograph of the street party on site. 2013

Fig 2.47 **Stage light:** photograph taken from the crowd on site, Boksburg. 2013


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Fig 2.48 **Fantasy:** Drawing and photograph. 2013

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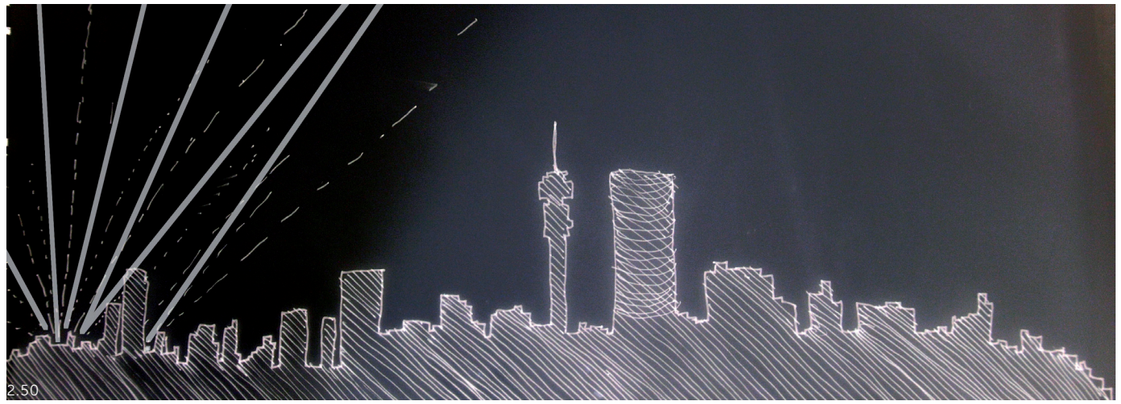
Fig 2.49 **Indulge:** Drawing over photograph, Boksburg. 2013



Light and Projection

LED (light emitting diode) projections are visible before the first beat exits the large amplifiers. Crowds gather before the scaffolding that makes up a large stage. One small figure sits behind a table which is placed in the middle of a big box (the stage). Thousands of people all face one direction-the source of the music-the disc jockey. Images made up of tiny LEDs seem to be in motion deliberately adding to the anticipation felt by the ritual subjects. On one occasion, a count down in the form of numerical values appearing on the large LED screen flash. When the number reaches '00:00' the crowd's chants reach a climax and the disc jockey appears simultaneously with his first beats. The LED projection changes to abstract lines conglomerating with architectural visuals to create depth behind the performer. Instantly the ritual subjects are transported into a new dimension. The thousands of silhouette heads and arms in front of the spectators' sight lines become secondary to the image being projected.

The substance of light is an important element in my thesis. Directed light beams have the ability to create space. Boundaries and canopies of light appear and disappear, creating an ever changing spatial environment for the users. From a distance this light can be seen and expressed as a place of wonder- a landmark embarking on an iconic symbol of liminality. .

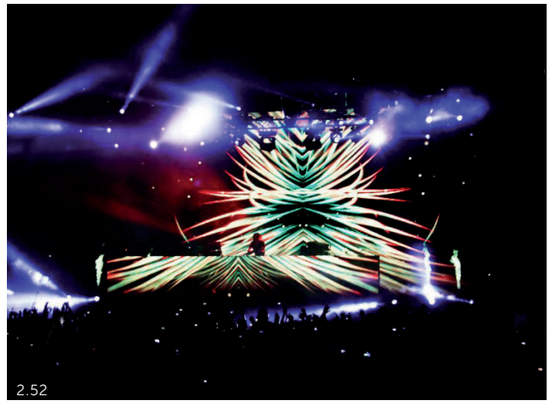


Fig 2.50 **Party Sanctuary seen from far:** drawing. 2013

Fig 2.51 **Laser lights:** photograph taken by Nathan Thomas, Skrillex performance. H_20. 2013

Fig 2.52 **Laser lights:** photograph taken by Nathan Thomas, Skrillex performance. H_20. 2013

...boundaries and canopies of light appear and disappear, creating an ever changing spatial environment for the users...

Fig 2.53 **Night render:** Early design intention perspective. 2013

...the existing wetland over the N12 highway is an inspiration. It attracts all kinds of bird life including flamingos. ...


2.54

Fig 2.54 **Wetland across from site :**
Photograph. 2013

Foliage and Wetland

Plants attract animal life. Wetlands do this too. I am particularly interested in the attraction of bird life, so that my design proposal may take other user types into account other than the human. Two of the design substances that I have included in my thesis that will attempt to achieve this are the wetland and plant life. Foliage of different colours, textures and sizes enable man to contemplate, relax and find refuge, and is an imperative aspect of the brief I have set for myself. Plants not only affect man visually but also indirectly in that air quality is increased and fragrances are present. The existing wetland over the N12 highway is an inspiration. It attracts all kinds of bird life including flamingos. It also acts as a great buffer between the land uses south of the highway and O.R Tambo international landing strip. It is a natural element which forms part of my larger master plan.

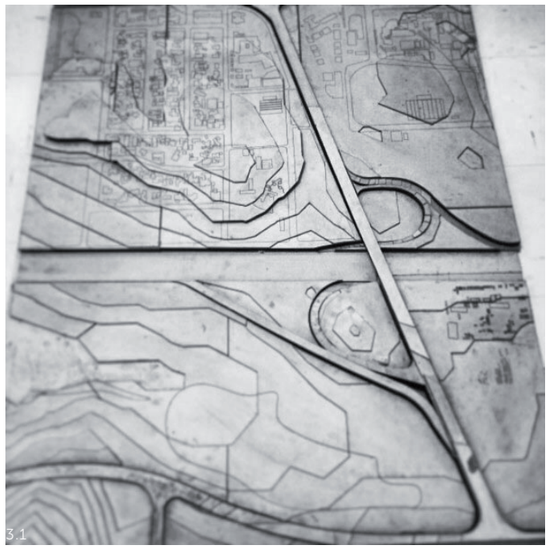

2.55

Fig 2.55 **Wetland across from site :**
Photograph. 2013

Fig 3.0 **Early perspective of Party Sanctuary:** Photograph of 3d model. 2013

C.
Design Synthesis:
Party Sanctuary

C. Design Synthesis: Party Sanctuary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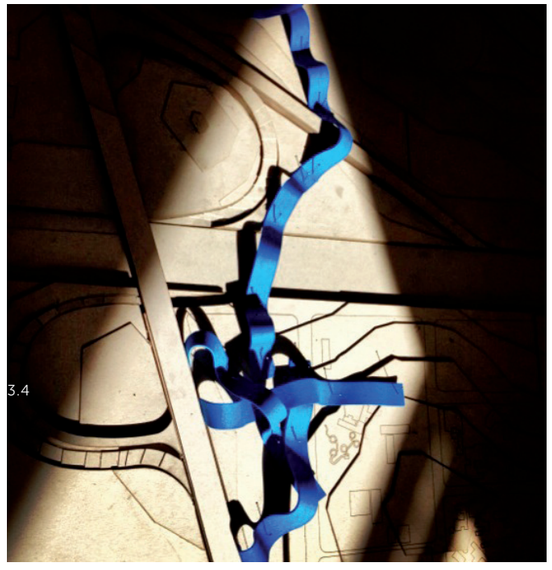
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Fig 3.1 **Site model as a blank canvas:** blank canvas. 2013

Fig 3.2 **Site model as a blank canvas:** convulated left-over space. 2013

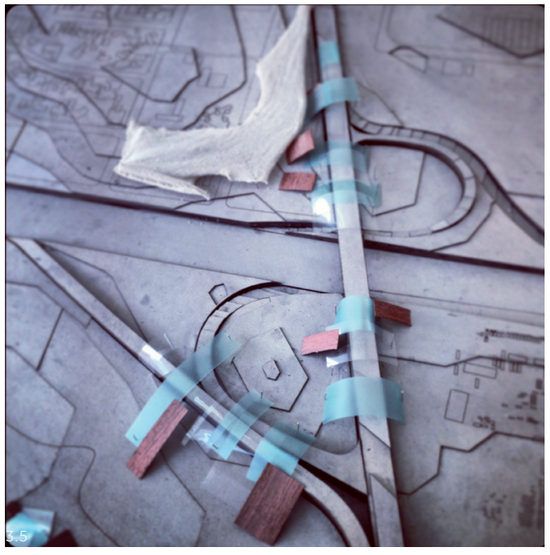
Fig 3.3 **Site model as a blank canvas:** twisted typology around Rondebult Road. 2013

Fig 3.4 **Site model as a blank canvas:** Fluid . 2013

Experiments: Physical Models

THE BLANK CANVAS

A 1:1000 site model was assembled very early in the design process. The site model became a blank canvas for design testing. Physical models were quickly constructed then dissembled so as to recycle the canvas over and over. This process of model building using malleable, unconventional materials became a liminal design phase because of the ephemeral nature of the scenes created. Photographs of these scenes were printed at a large scale and pinned up in the design studio always reminding me of the once avant-garde typologies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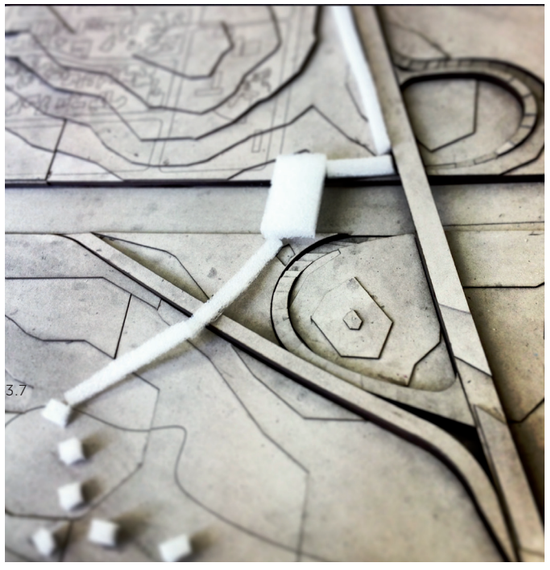
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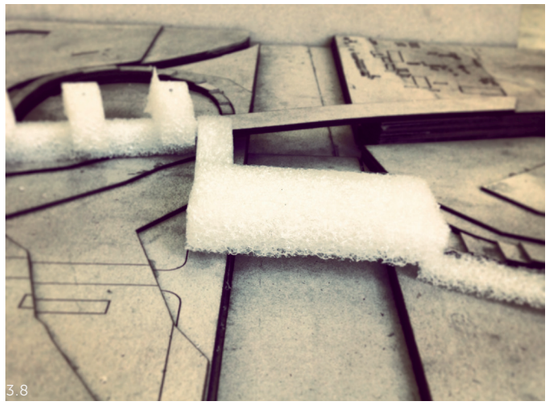
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I tested. These physical short-lived models aided me specifically with the larger master plan of my scheme. The extents reached all the left over spaces of my surrounding context. (See earlier aerial). These models breached the thresholds of Boksburg's left-over and often forgotten spaces like the natural wetland, the off-ramp's voids and the highway itself. Later these uses will be revealed in the program. Not only was the blank canvas used for physical model testing, but it also acted as a projection screen, where important substances and elements were mapped and projected onto the site model. Some of these projections have been revealed already and some are still to come.

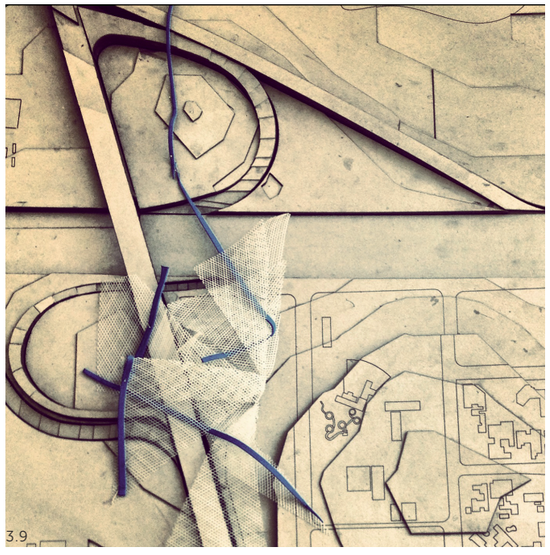
Fig 3.5 **Site model as a blank canvas:** hugging Rondebult Road, soft canopy on site. 2013

Fig 3.6 **Site model as a blank canvas:** branching over the N12 highway into a left-over space and touching the natural wetland. 2013

Fig 3.7 **Site model as a blank canvas:** branching over the N12 highway into a left-over space and touching the natural wetland. 2013

Fig 3.8 **Site model as a blank canvas:** branching over the N12 highway into a left-over space and touching the natural wetland. 2013

...unconventional materials became a liminal design phase because of the ephemeral nature of the scenes created...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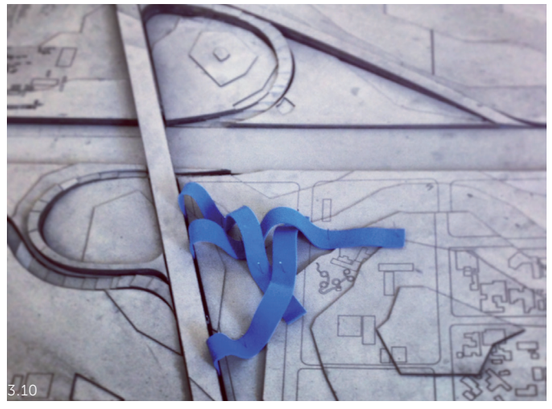
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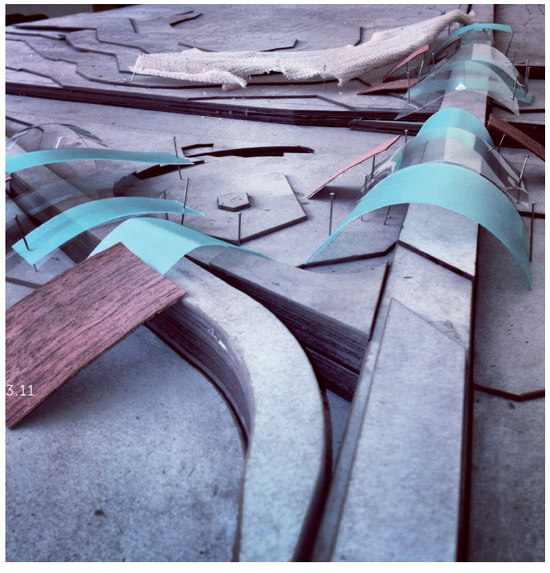
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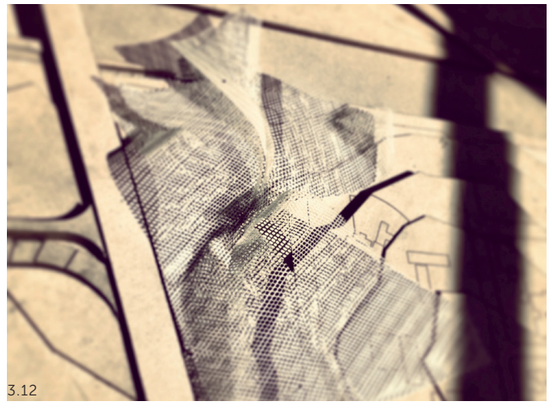
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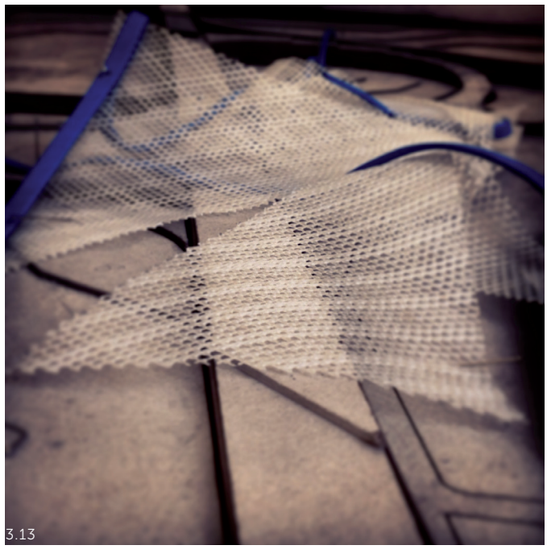
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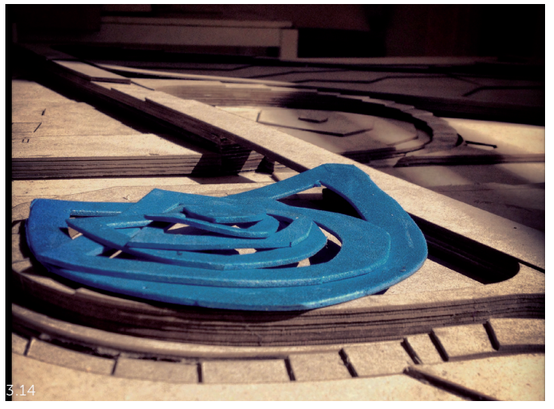
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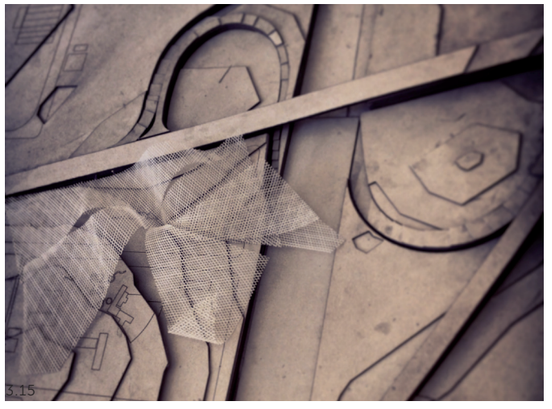
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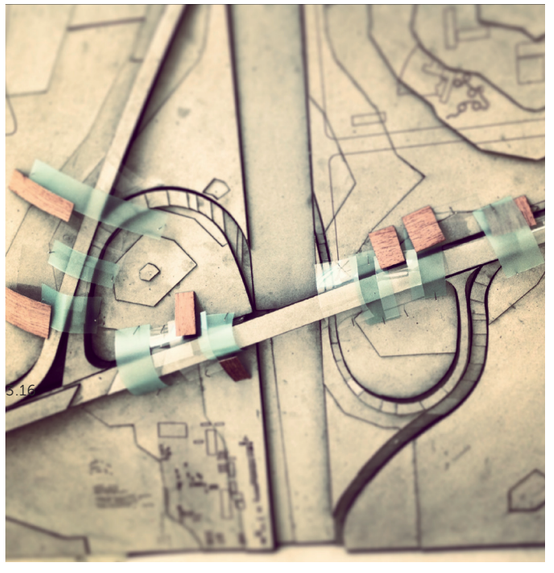
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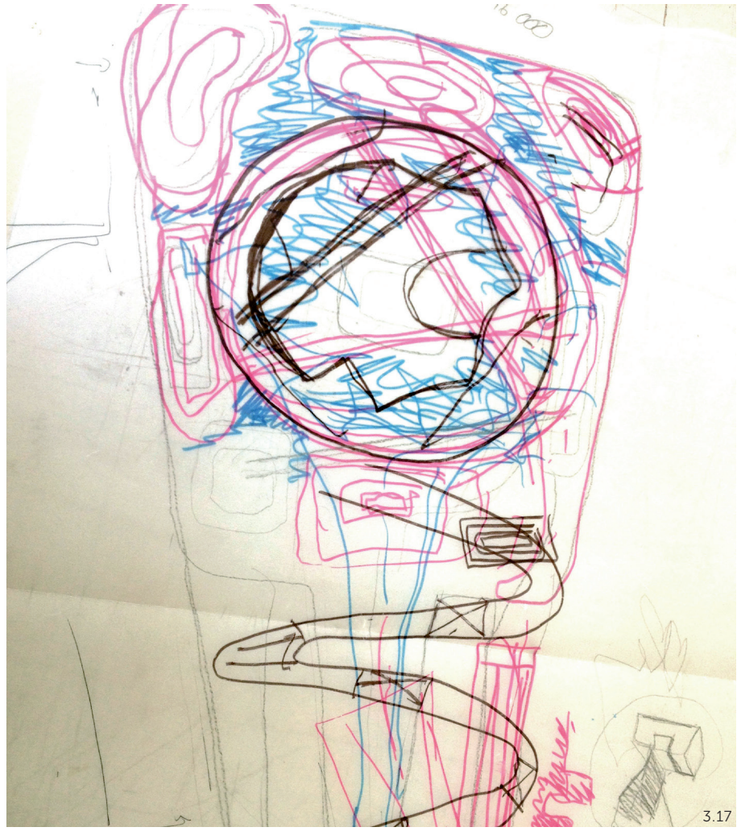
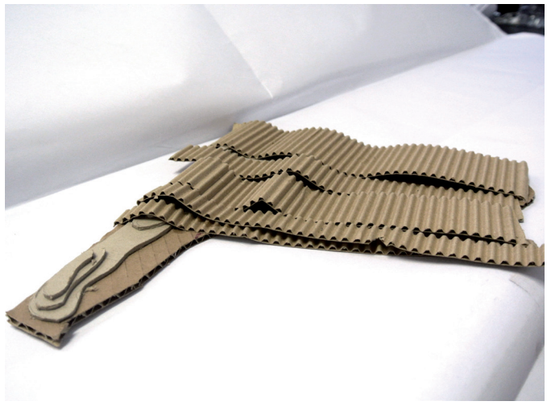
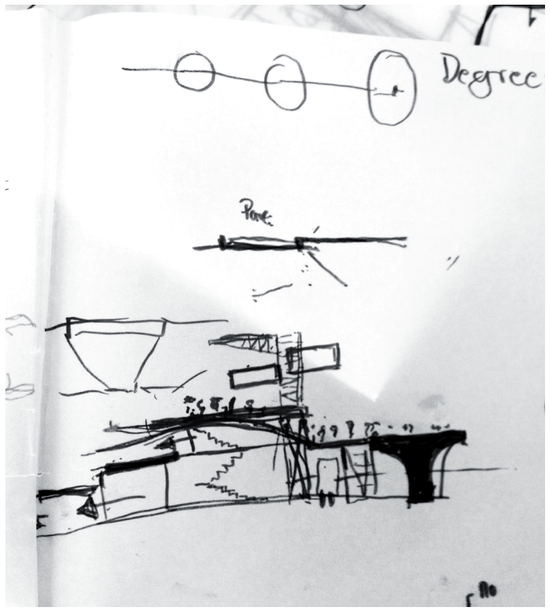
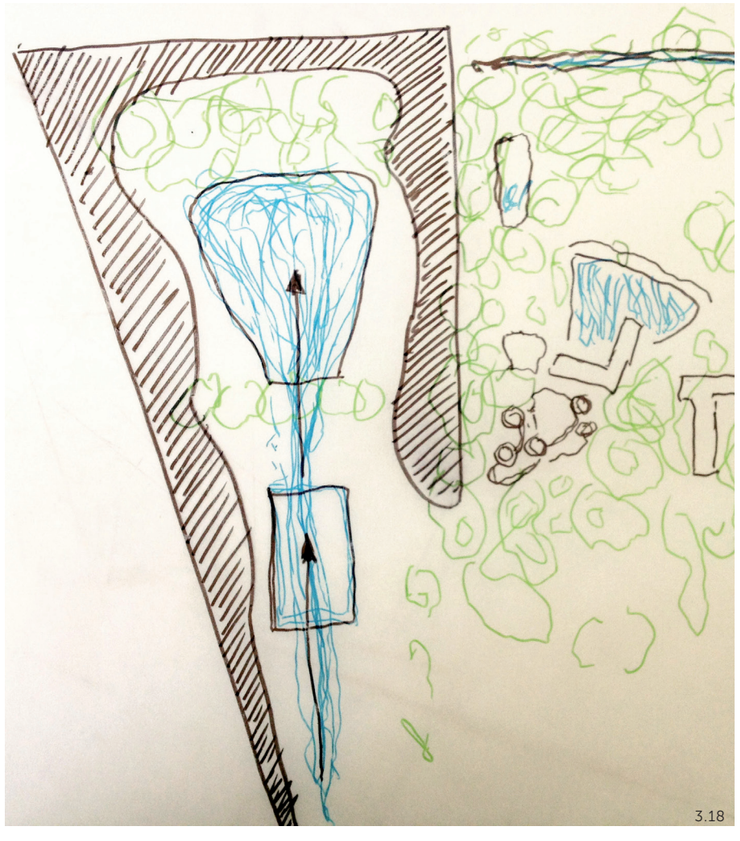
Fig 3.9 **Site model as a blank canvas:** something light. 2013
Fig 3.10 **Site model as a blank canvas:** fluid. 2013
Fig 3.11 **Site model as a blank canvas:** Rondebult as the link to the airport. 2013
Fig 3.12 **Site model as a blank canvas:** canopy . 2013

Fig 3.13 **Site model as a blank canvas:** soft. 2013
Fig 3.14 **Site model as a blank canvas:** left-over space, highway off ramp void. 2013
Fig 3.15 **Site model as a blank canvas:** canopy. 2013
Fig 3.16 **Site model as a blank canvas:** the link. 2013









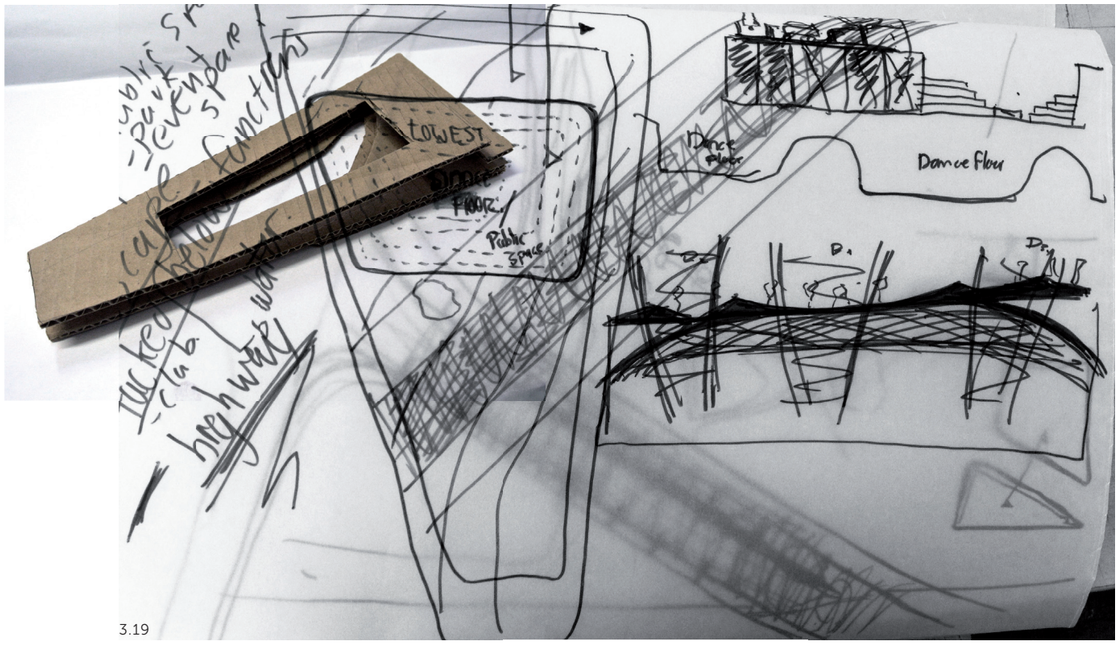
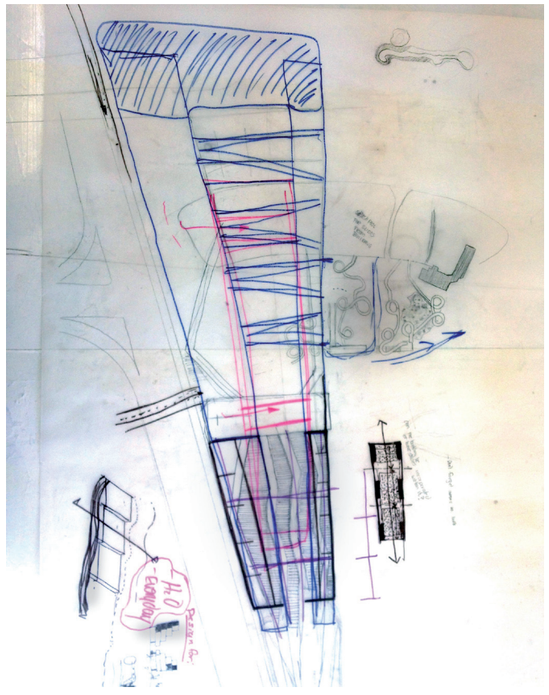
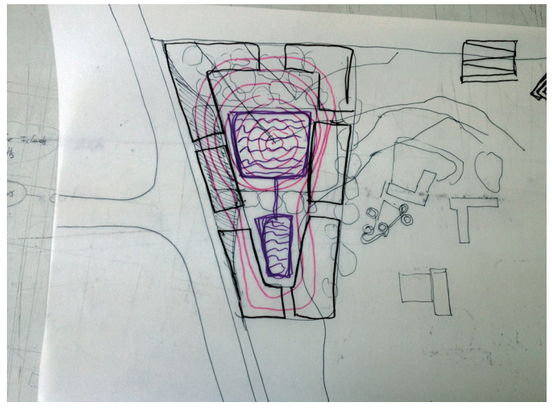
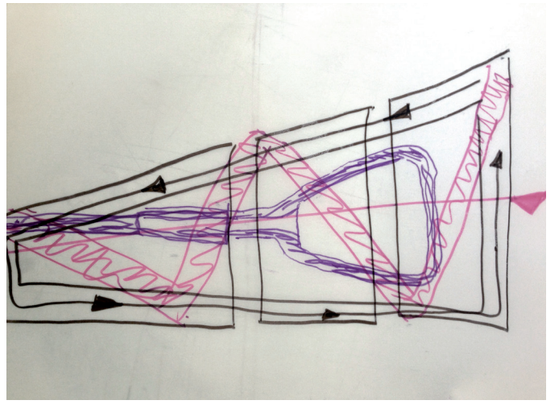
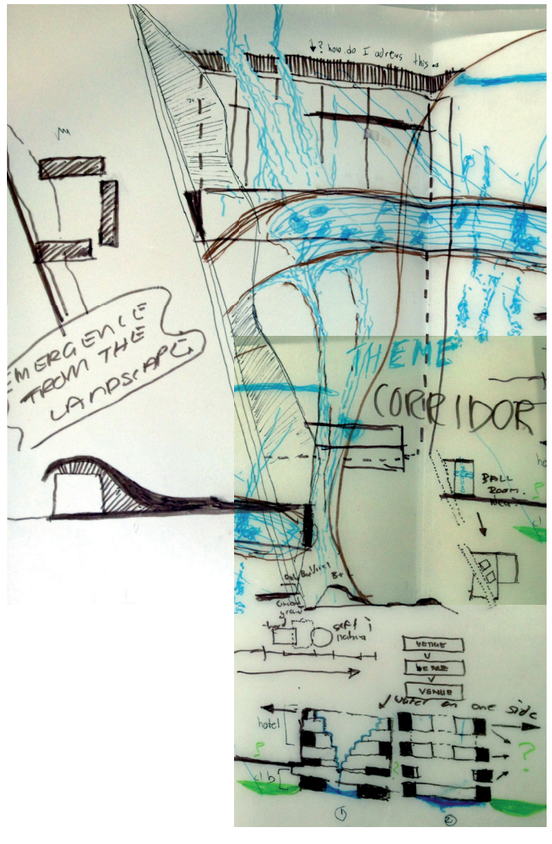


Fig 3.17 **designing in plan:** drawing. 2013
Fig 3.18 **designing in plan:** drawing. 2013
Fig 3.19 **designing with cardboard:** landscape, massing tests. 2013







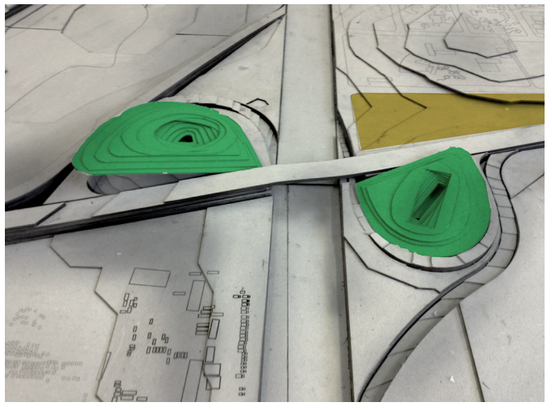


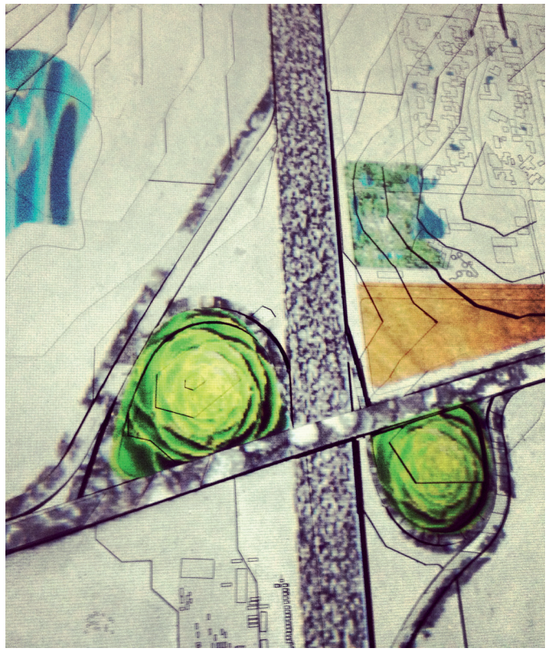
3.20

Fig 3.20 **designing with colour:** drawings. 2013

Experiments: Physical Models and Sketches

Within the master plan of the scheme, the voids of the off-ramps that connect the N12 to Rondebult Road will be built up to host programs that will support the main scheme of Party Sanctuary. The more important intention however is to incorporate these massing's into the event function of Party Sanctuary. In the images below (a mixture of physical models and projection mapping) one can see the massing's acting as large natural amphitheatres. The intention is for the users of a large party to also occupy these amphitheatres/ active roofs and use them as another degree of the larger seating/sight arrangement. See Scenario diagrams.





3.21

Fig 3.21 **The connection between the different mediums:** drawings, models and projections. 2013

Users

WHO?

Who will be using Party Sanctuary? The user groups of Party Sanctuary can be separated into interests. These include: wellbeing; refuge/sanctuary; recreation and event. Each interest group has been allocated a space within the site. The intention for the in-between is not to create a shielded wall but rather a separation strategy which allows for easy transition. The overlap between two or three or four interests will make use of the marriage between manmade and nature (hard and soft intersections) in order to separate functions. These overlaps will be grounded in the theory of this thesis, liminal space.

WELLBEING

The users that are interested in their wellbeing will come to Party Sanctuary for exercise. Programs supporting this interest include the Olympic swimming pool, smooth surface treated paving for skateboarding, and 'metal works' gymnasium located within the Wild Waters complex.

REFUGE

The public space of Party Sancturay will offer its users spaces of refuge and sanctuary. The main public element is the sporadic portions of artificial wetland cells and the splash pools in between. Platforms for relaxation which intend to mimic some form of 'beach' also contribute to the tranquillity of the public space. The users of the public space include passers-by, local residents of Bardene, Boksburg, families from surrounding towns, passengers from O.R Tambo International airport, and corporates from the proposed (larger master plan proposal) and existing conference facilities within the area.

"If it is possible to open up a new nature within the fabric of the land, why not make a totally new nature?"

Aaron Betsky

3.22

Fig 3.22 **The different user groups:** drawings, youth, flamingo (birds), families, plant-life: drawing. 2013

Has the capacity of the place been determined?

3.23

Scenarios

CAPACITY

There are four scenarios which contributed to the spatial requirements for events to occur. These scenarios are based on number of users attending the particular event. Five thousand people, twenty thousand people, fifty thousand people and eighty thousand people- each area growing from the centre of the site outwards. (See fig within fold out page). An understanding of spatial requirements became more realistic. People in these scenarios become another layer of architecture, another physical body which will take a space. I have to continue to design with these spatial occupancies in mind.

3.24

3.25

Fig 3.23 **The crowd grows:** photograph taken from my bar at 11:00am, H_20 (adjacent site) event, Wild Waters. 2013

Fig 3.24 **The crowd grows:** photograph taken at 12:00pm, H_20 event, Wild Waters. 2013

Fig 3.25 **The crowd grows:** photograph taken at 05:00pm, H_20 event, Wild Waters. 2013

Scenarios

CAPACITY

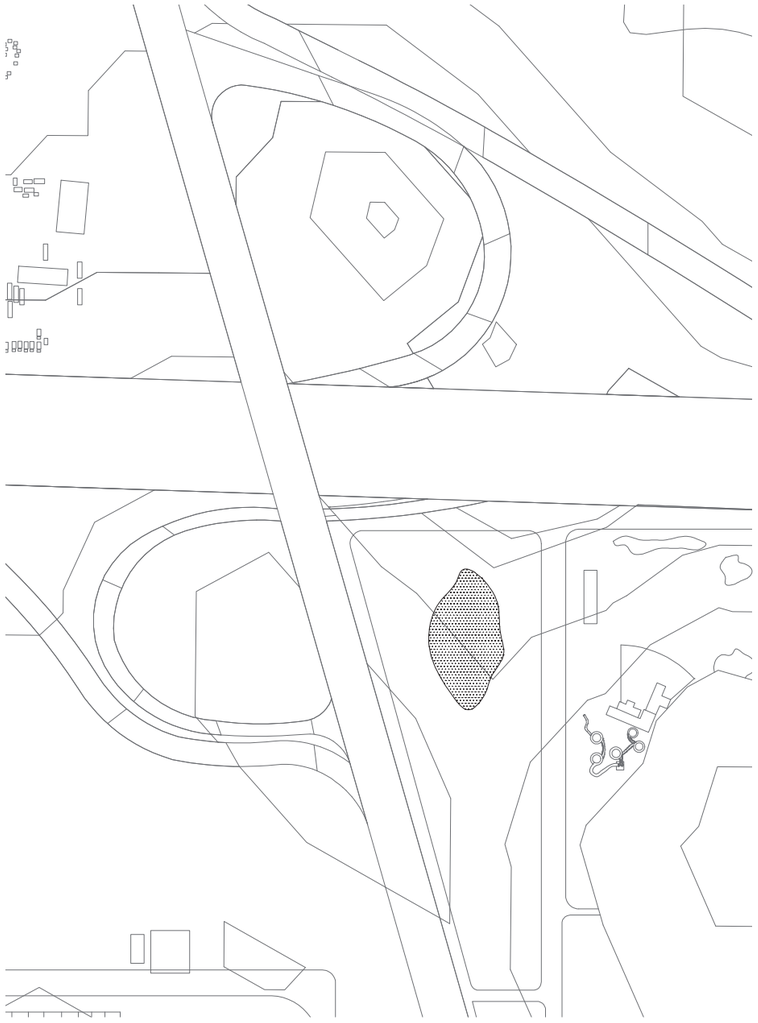


Fig 3.26 **Scenarios:** mapping of 5000 people at an event on the site. 2013

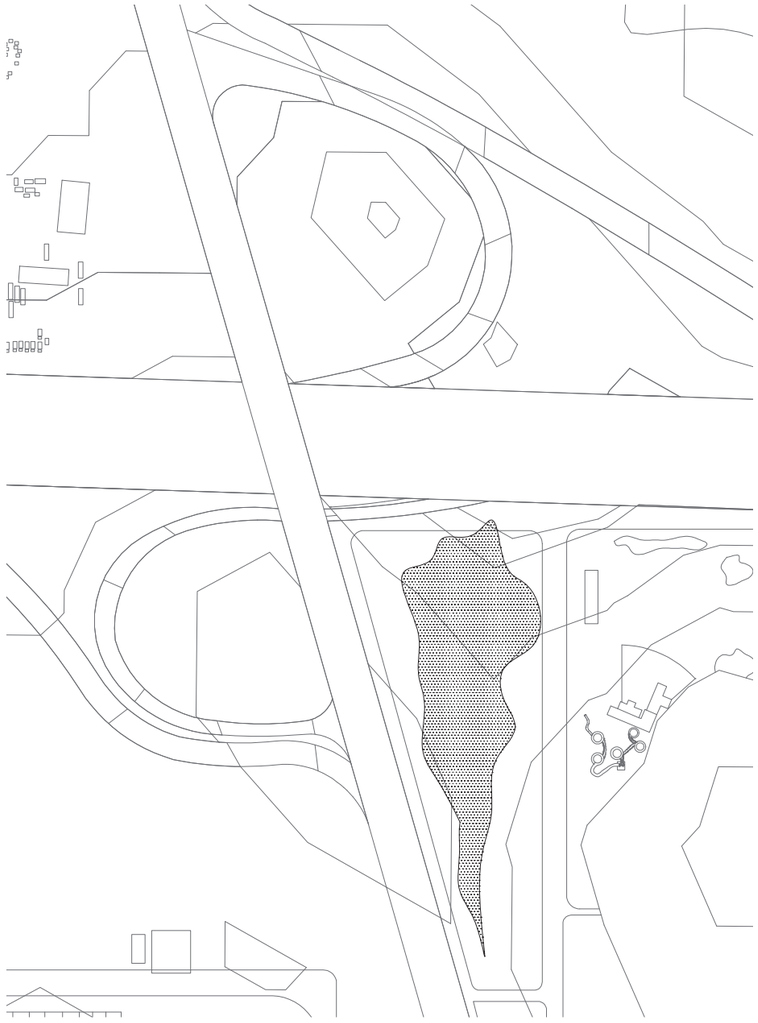


Fig 3.27 **Scenarios:** mapping of 20 000 people at an event on the site. 2013

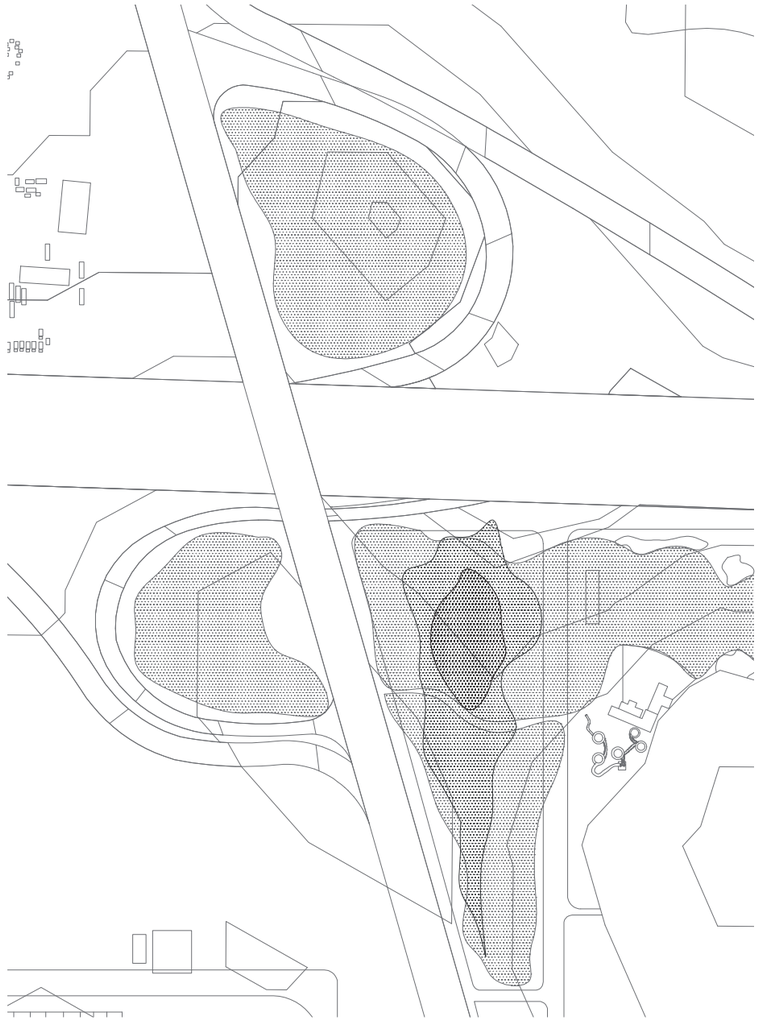


Fig 3.28 **Scenarios:** mapping of 100 000 people at an event on the site. 2013

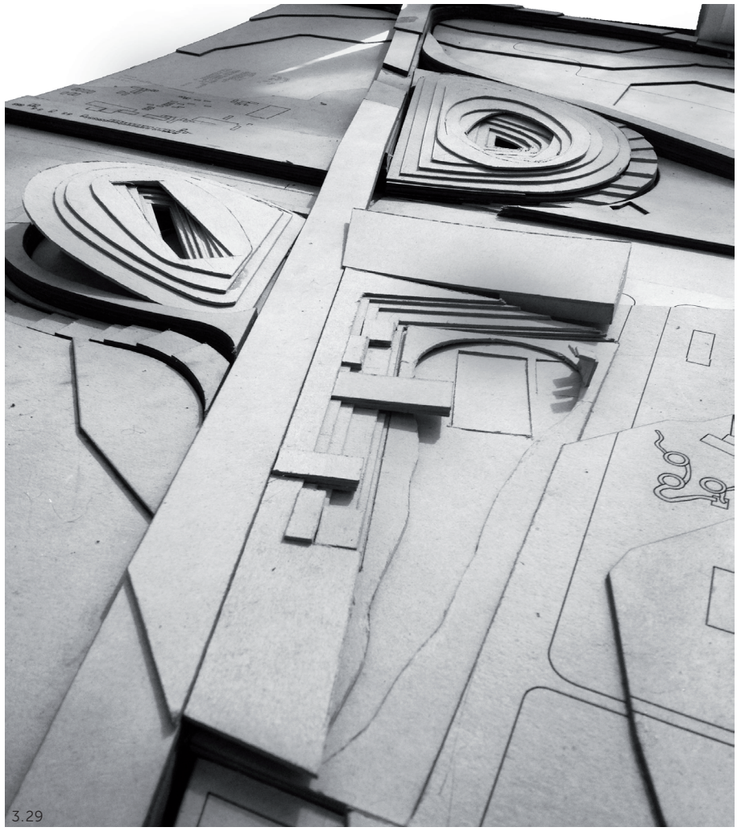
Introduction to Program

EARLY PROGRAM DECISIONS

A program revealed itself after the use of a conglomeration of theory research, observation, writing, model building and drawing. The figures here show the beginnings of a program. These figures illustrate the intentions for the site at an early stage in the design process.

In chapter B, certain substances and elements were discussed. Their origin grew from observation of the site. The element of flight found in the aeroplanes that fly over the site allowed for the decision to create a conference centre within the larger master plan.

The liminal elements that the H20 event revealed, gave an indication for the need for more open space to relieve the pressures of the existing landscape. Studying the youth culture at these events and noting their hunger for release, brought on the idea of a club. At the same time, through observation and studying the landscape of Boksburg through maps and its history, a need for public space became apparent.


3.29

The substance of water found within the surrounding context brought on the implementation of an **artificial/ constructed wetland**. Studying the typography of the site made it apparent that a constructed wetland was possible.

After becoming familiar with the proposed Aerotropolis framework for O.R Tambo International Airport, a need was established for a place of refuge and sanctuary within this region. This also aided me in establishing the need for a gateway into the city from the N12 highway. Because of this need, a building that could be visible from the airport and the city, had to be applied to the program. Height restrictions at the site prevented me from going over twenty metres. In order to achieve a **landmark as a typology**, I looked at other ways to achieve an iconic structure which included the use of **light to define space** and to attract the eye. The implementation of the concept of a cloud as a new typology in this region originated from the above process.

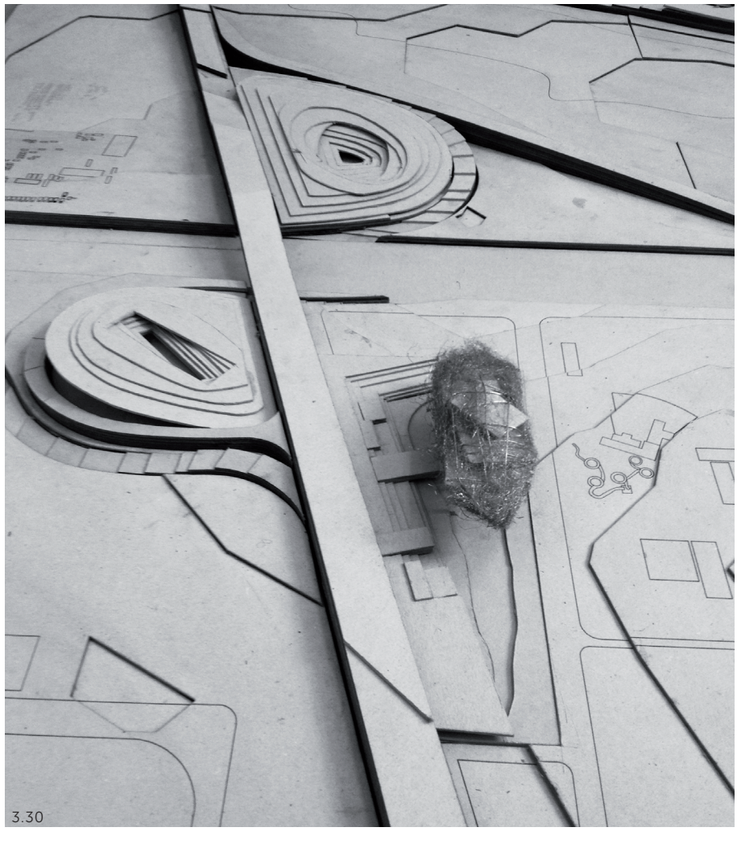

3.30

Fig 3.29 **1:100 massing model:** a pool, a constructed wetland and a beach. 2013

Fig 3.30 **1:100 massing model:** a pool, a constructed wetland and a beach and a cloud. 2013

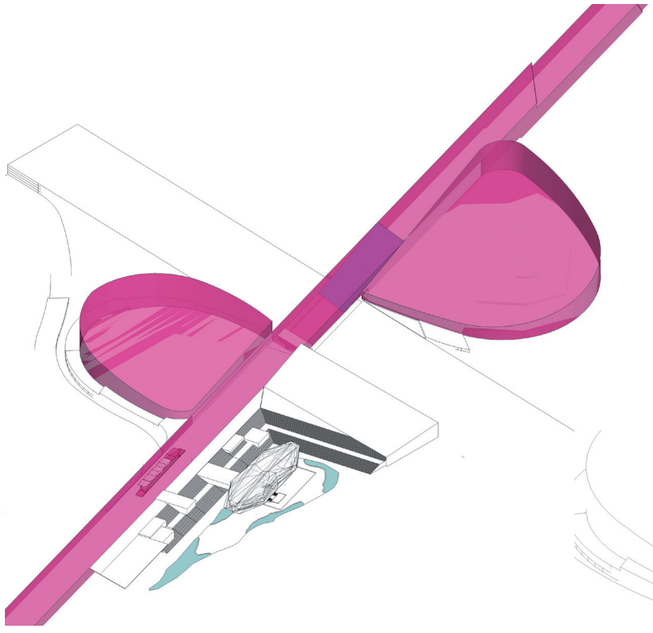


Fig 3.31 **massing model master:** the offramp voids as a parking lot and a conference centre. The natural wetland and the constructed one on site. 2013

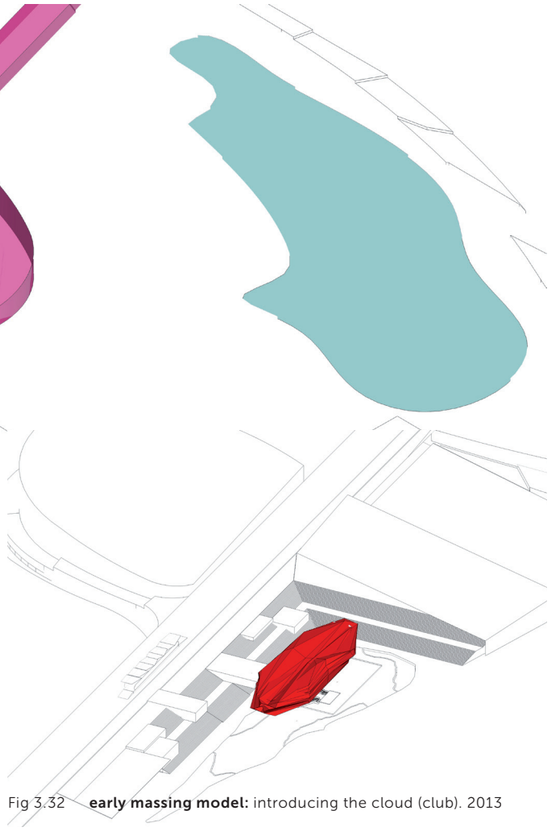


Fig 3.32 **early massing model:** introducing the cloud (club). 2013

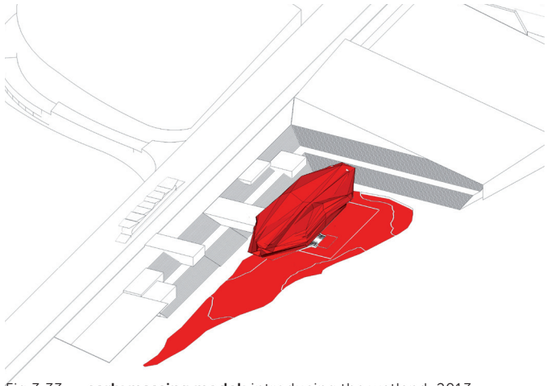


Fig 3.33 **early massing model:** introducing the wetland. 2013

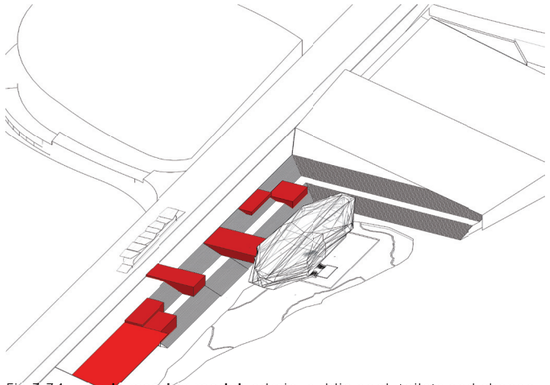


Fig 3.34 **early massing model:** admin, public pool, toilets and change-rooms. 2013

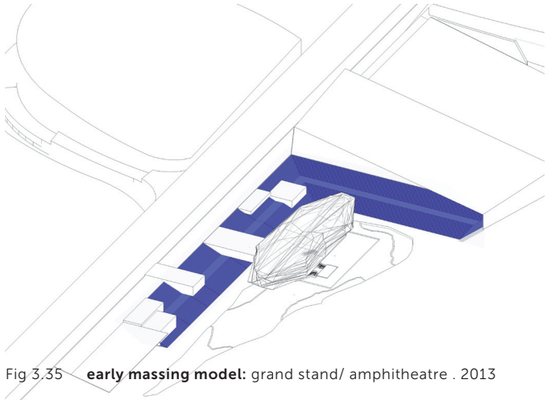


Fig 3.35 **early massing model:** grand stand/ amphitheatre . 2013

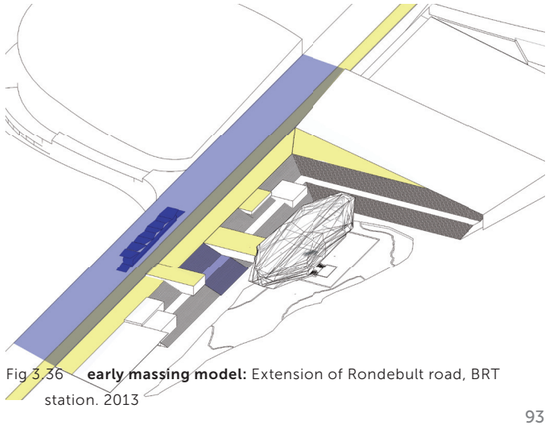
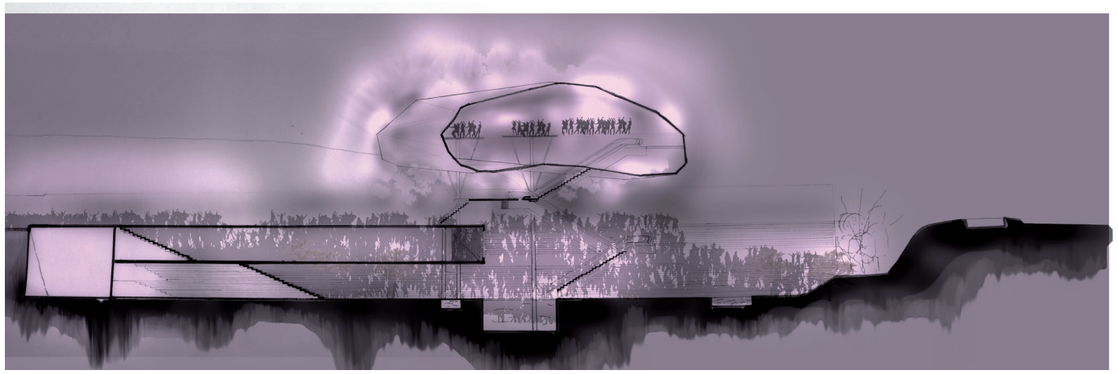
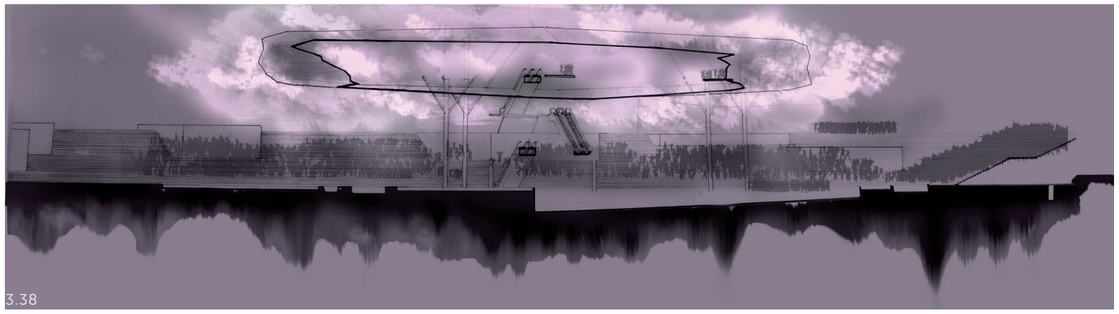


Fig 3.36 **early massing model:** Extension of Rondebult road, BRT station. 2013

...I looked at other ways to achieve an iconic structure which included the use of light to define space and to attract the eye...





3.38

Fig 3.37 **Sketch design plan:** hand drawing ontop of aerial phtograph . 2013

Fig 3.38 **Sketch design sections:** hand drawing depicting the cloud in its context during an event. 2013

Conceptual uses of the program

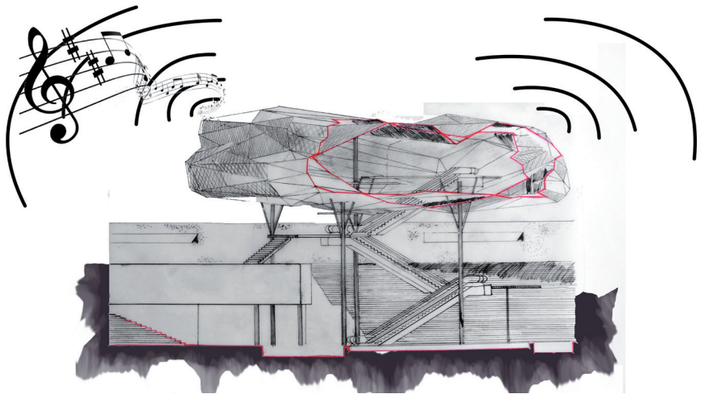


Fig 3.39 **Cloud functions:** as a large amplifier . 2013

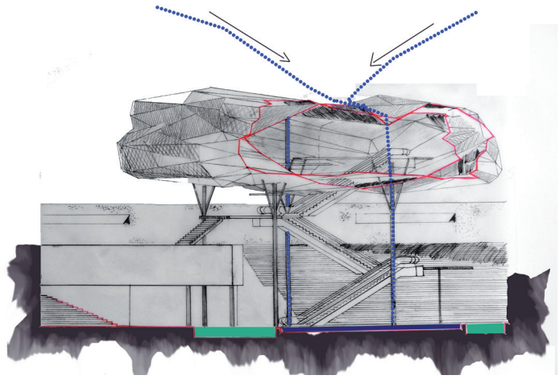


Fig 3.40 **Cloud functions:** as a rain water collector . 2013

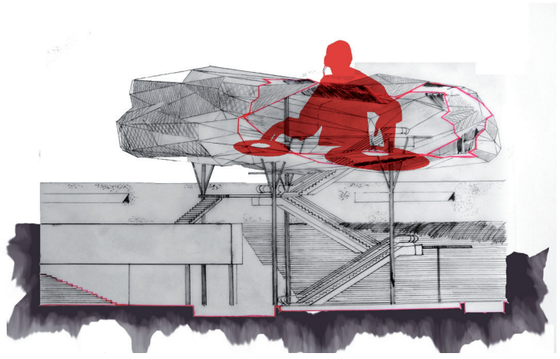


Fig 3.41 **Cloud functions:** as a DJ box . 2013

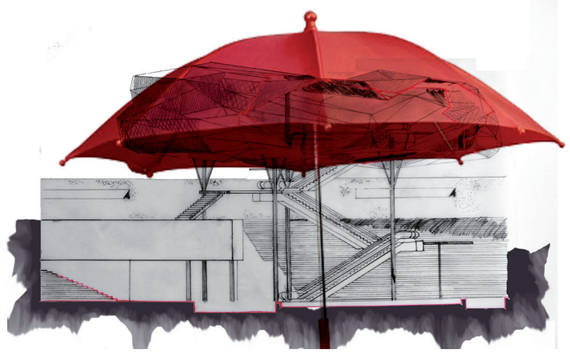


Fig 3.42 **Cloud functions:** as an umbrella or parasol . 2013

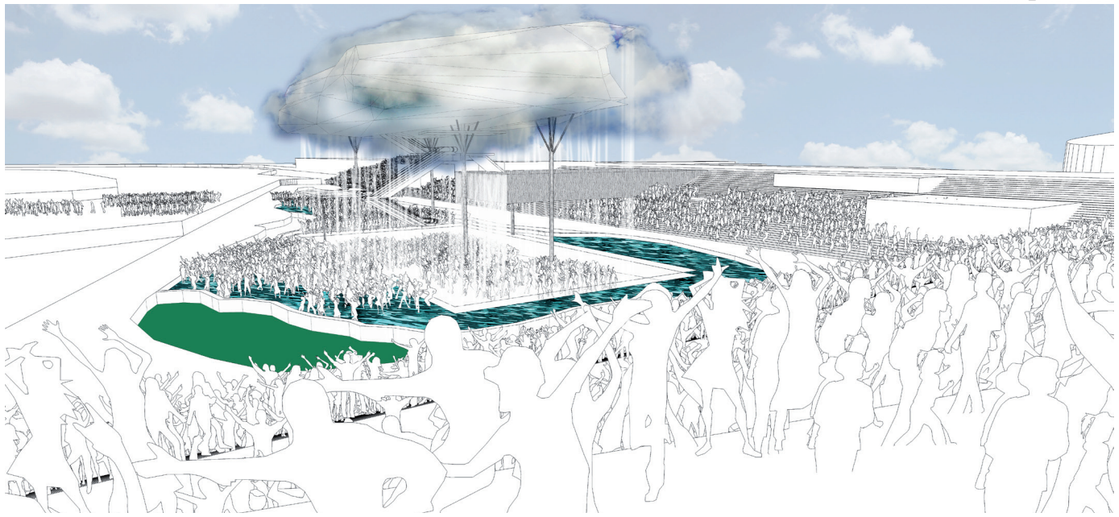


Fig 3.43 **The intention:** perspective of a day event at Party Sanctuary . 2013

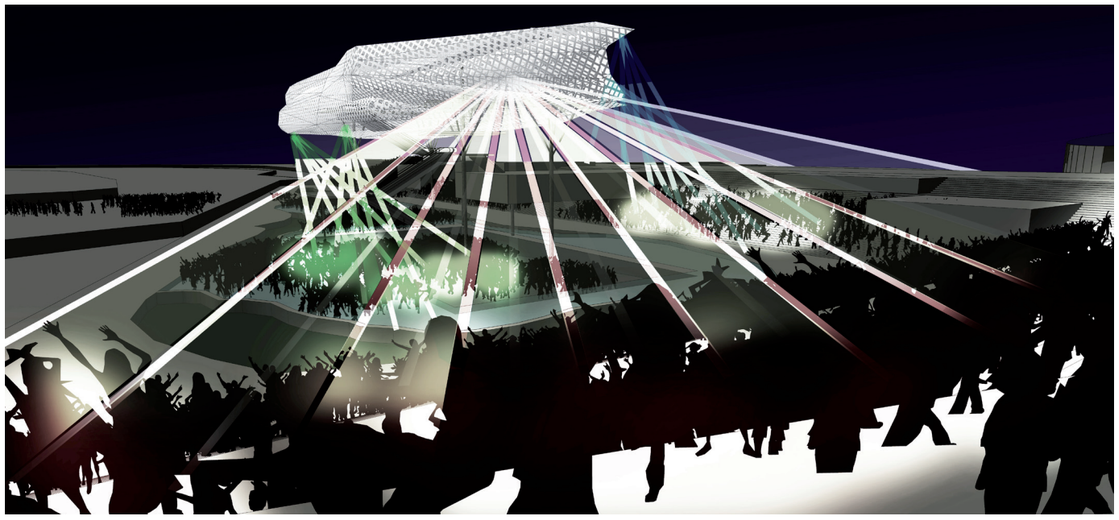


Fig 3.44 **The intention:** perspective of a night event at Party Sanctuary . 2013

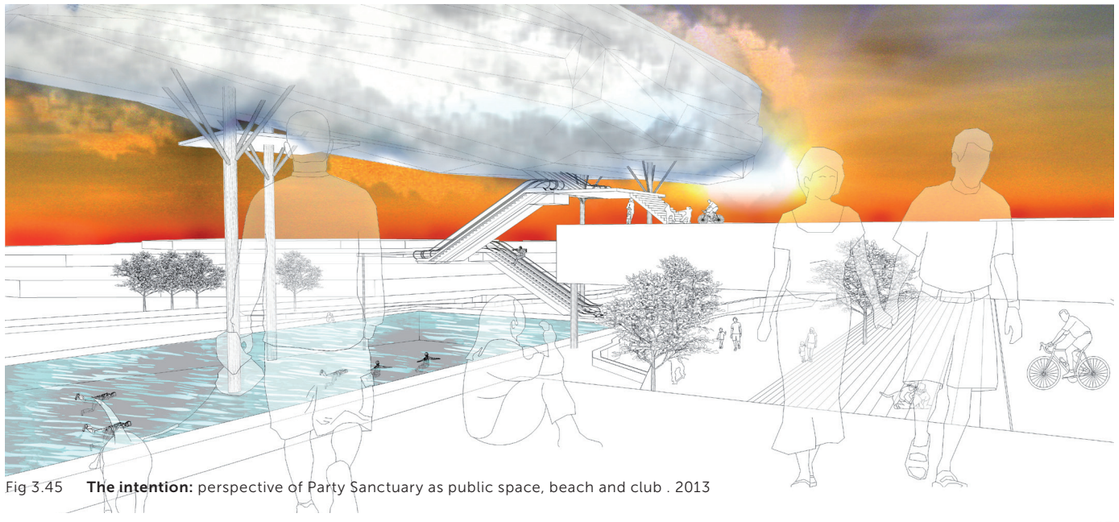
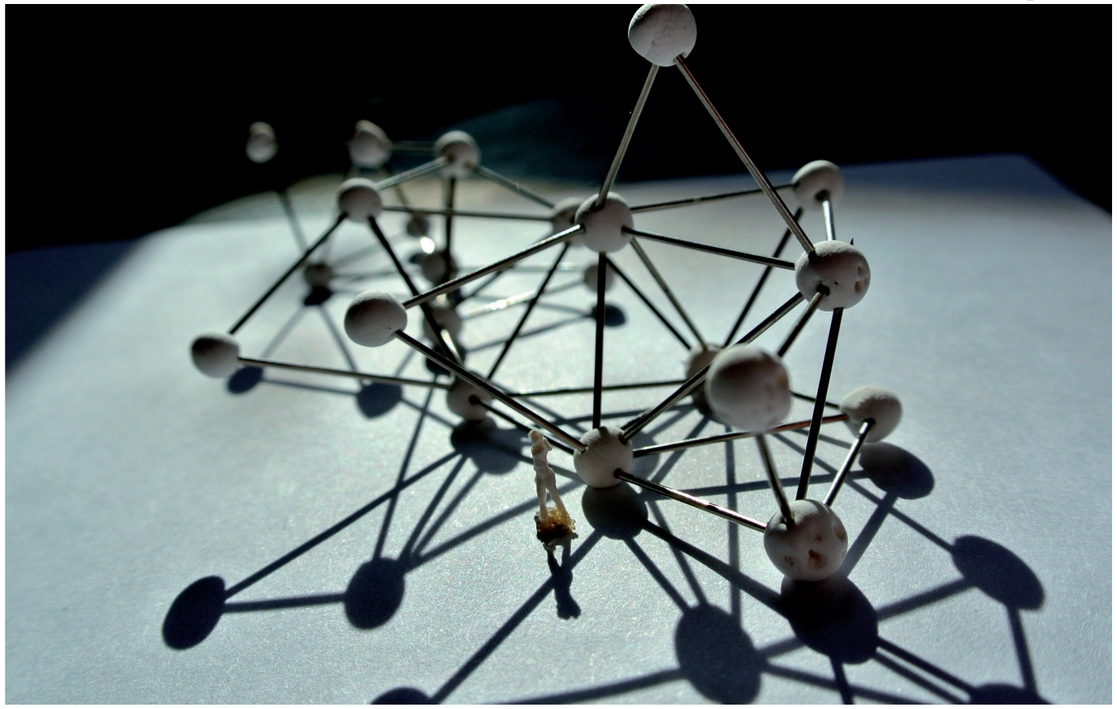


Fig 3.45 **The intention:** perspective of Party Sanctuary as public space, beach and club . 2013

Structure study of the cloud

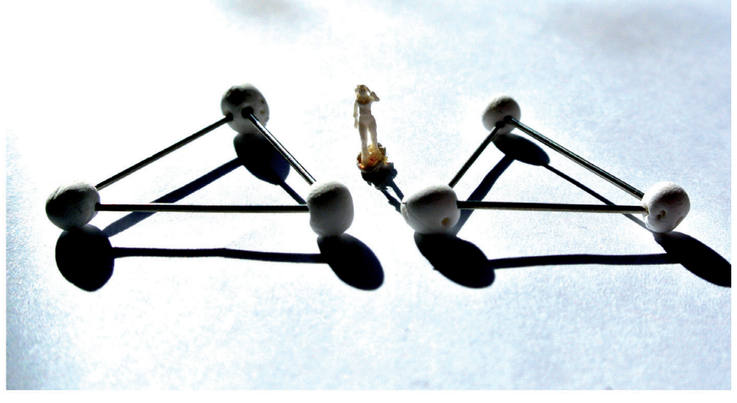
If I can't build it by hand, then I cant build it virtually. Models are the sources of many ideas.



ROOF, AND INNER CORE

I studied the clouds structural form through a series of physical models before modelling it virtually. I began by studying natural clouds and their form—Stratocumulus, Cumulus, Altostratus, Cirrus, Stratus etc. The Stratocumulus's form was best suited for the program that the cloud will host. The physical models were made using a series of triangular configurations testing the structure with toothpicks and polystyrene and pins with crazy clay at the vertices. See figs. These triangular frames allow for infill flexibility- creating different transparency panels according to the clouds orientation. Some triangles will be left completely open to capitalise on specific views. I studied some of Buckminster Fuller's systems including tensegrity.

Fig 3.46-3.48 **Triangulation:** crazy clay and pins . 2013



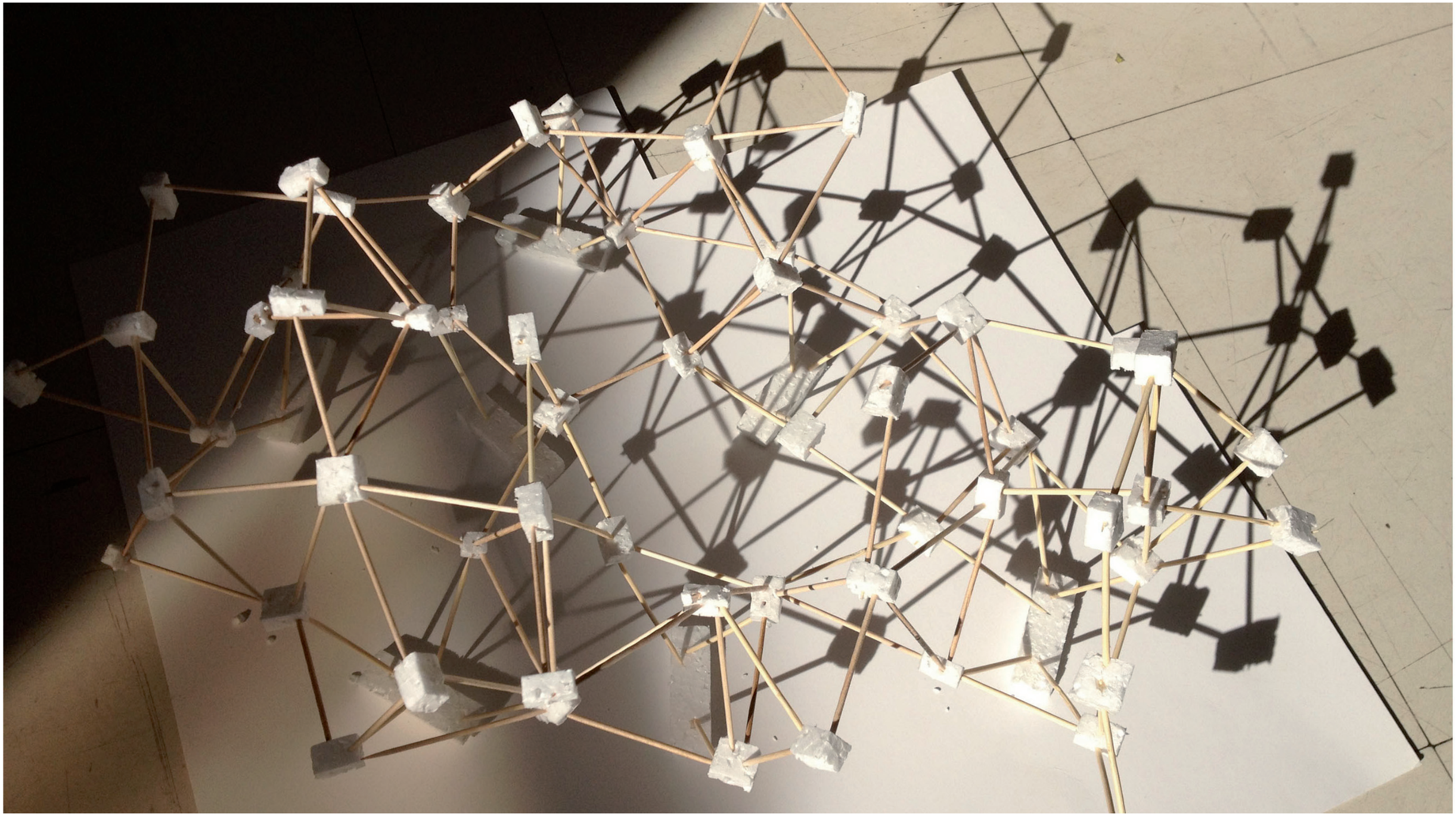


Fig 3.49 **Triangulation:** toothpicks and polystyrene . 2013

C. DESIGN DEVELOPMENT_CONCEPTUAL USES OF THE PRO-GRAM_THE CLOUD

Fig 3.50 **Triangulation:** toothpicks and polystyrene . 2013

Fig 3.50 **Triangulation:** toothpicks and polystyrene . 2013

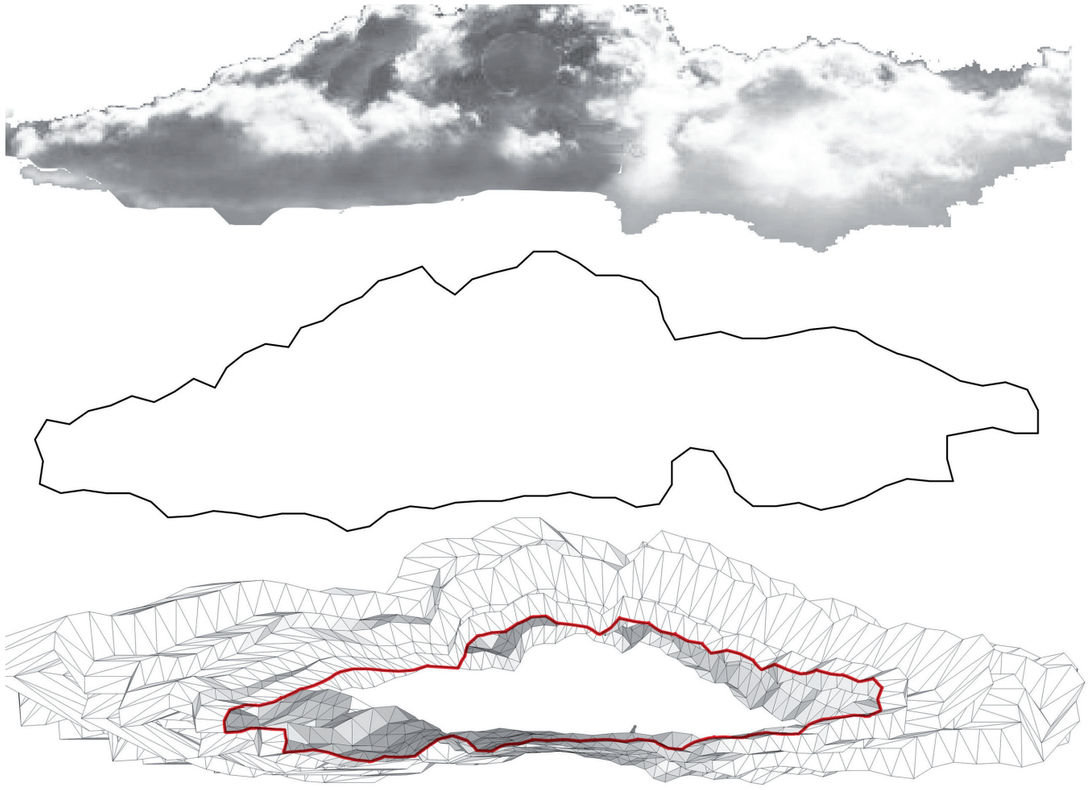
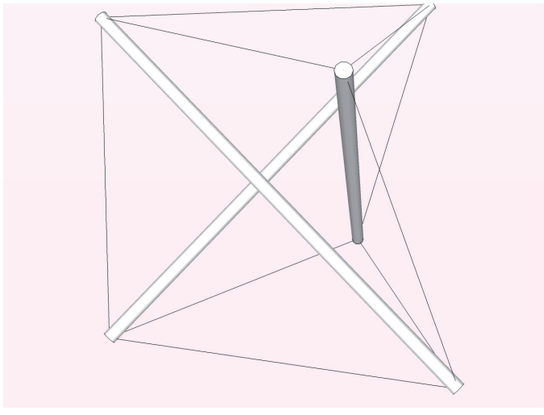


Fig 3.51 **Tensegrity octahedron model:** dowel sticks, elastic bands and plastic caps, 2013

STRUCTURE INCLUDING SKIN

TENSEGRITY

"The characteristic property of a stable three-dimensional structure consisting of members under tension that are contiguous and members under compression that are not" (source: www.oxforddictionaries.com) According to Kenneth Snelson, an artist, a better suited name for this particular form of structure is 'floating compression'. The physical model that I built is called a tensegrity octahedron which is comprised of six dowel sticks (compressive memebrs) and six elastic bands (tensile members). see fig. Once I began to understand the structural integrity of tensegrity I modelled up a tetrahedron form on the computer. see fig. This allowed me to test the type on a conceptual three-dimensional virtual model. (See figures 3.52-3.53). (Burkhardt, 2008)



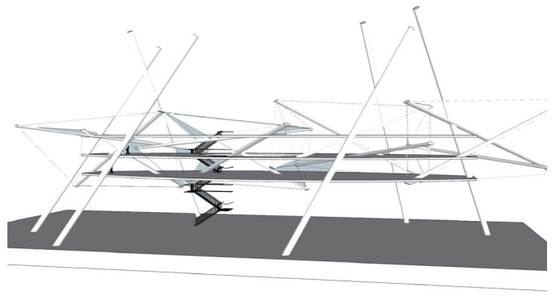


Fig 3.52 **Tensegrity transformed into a typology:** 3d sketchup model, 2013

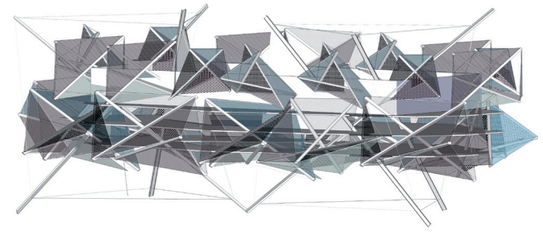


Fig 3.53 **Tensegrity transformed into a typology:** 3d sketchup model, 2013

LIGHTING-LIGHTING RIG, TRANSPARENCY

The underside of the cloud will host the different lighting requirements for an event. The lightweight steel form will act as a permanent lighting rig for performances and create an ephemeral space. The light projected from the cloud will invite users to the site from all edges of the city to the club. Albert Speer (Hitlers' architect) used light in a utilitarian manner for Zeppelin Field in Germany. (See fig 3.55). Zeppelin Field was used by Hitler as a Nazi party rally ground in Nuremberg, Germany. More recent images show the grounds being used for a rock concert venue, 1978. (See fig 3.56). The reason for the name Zeppelin Field is because of the airship belonging to Count Zeppelin which landed on the grounds in 1909. The airship later became known as the Zeppelin and this historical flying structure influenced the Cloud.

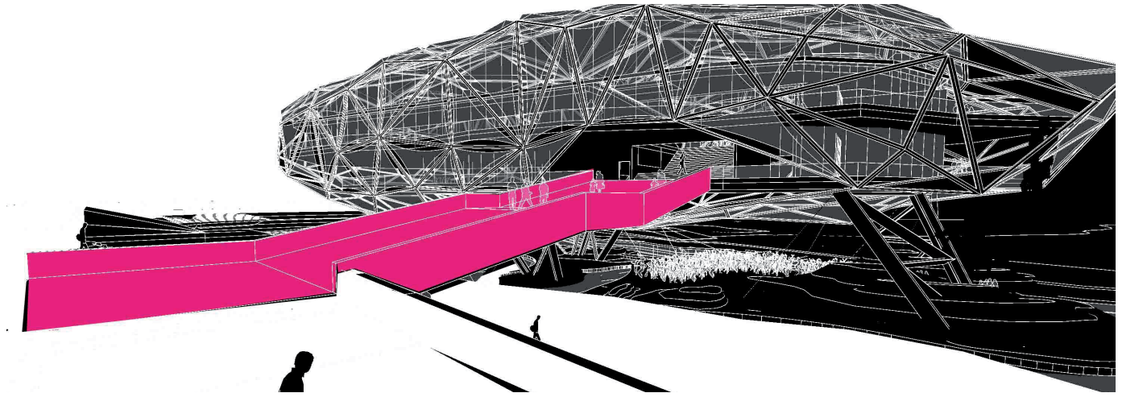
CIRCULATION

The main access point into the Cloud is via a large tongue (ramp) which extends off the enlarged pavement of Rondebolt Road. See fig. There will also be another means of escape via a fire stair dropping from the cloud onto the platform above the wetland. (James, 2000)

Fig 3.54 **Rubber USS Macon zeppelin:** Posted in Apocalypse, Architecture, Downsizing, Photography, Sculpture, Technology, Texture by RADDblog on January 13, 2010, May 2013

Fig 3.55 **Cathedral of Light:** Albert Speer's lighting techniques during the 9th Nuremberg rally on 10 September 1937, photograph by Offzier Hashem,[online source] < http://www.deviantart.com/> 2013

Fig 3.56 **Sixties hippie festival Zeppelin Field:** Photograph by unknown. [online source] < http://postmagazine.org/>, May 2013



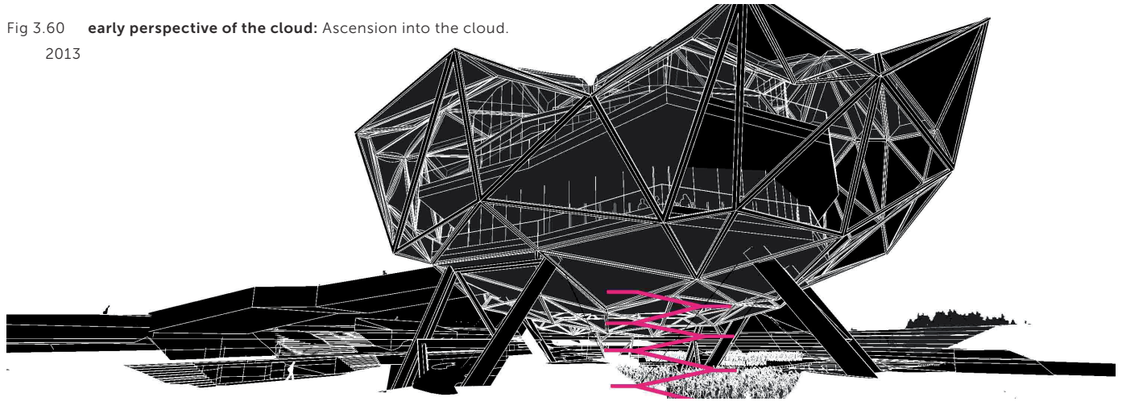
CIRCULATION

The main access point into the Cloud is via a large tongue (ramp) which extends off the enlarged pavement of Rondebolt Road. See fig. There will also be another means of escape via a fire stair dropping from the cloud onto the platform above the wetland.

VIEWS

The orientation of the cloud was informed partially by views that the site presented. In the North direction, O.R. Tambo International Airport's landing strip is visible and what better site could a ritual subject endure while dancing under the stars, other than an aeroplane landing in the distant. During the day, the natural Wetland, just over the highway, is in full view. The users of the cloud will be able to spot birds leaving the natural Wetland and fly across to the constructed wetland to land on one of the trees planted in the wetland bird island. These bird islands will host tall trees (heronry) which will be a natural structure for birds to perch on. Fig x shows an artificial heronry in Pietermaritzburg to account for the loss of roosting and nesting sites for many species of birds. The islands at 'Party Sanctuary' were influenced by a constructed island in Kamfers Dam, Kimberly where a large population of flamingos roost. Because of pollution into the dam, the flamingos became threatened. In an effort to save the Lesser Flamingos, an artificial island was constructed for roosting and feeding. I wish to create a similar island for both the flamingos of the natural wetland across the highway and for other birds that may visit the 'Party Sanctuary'.

Fig 3.60 **early perspective of the cloud:** Ascension into the cloud. 2013



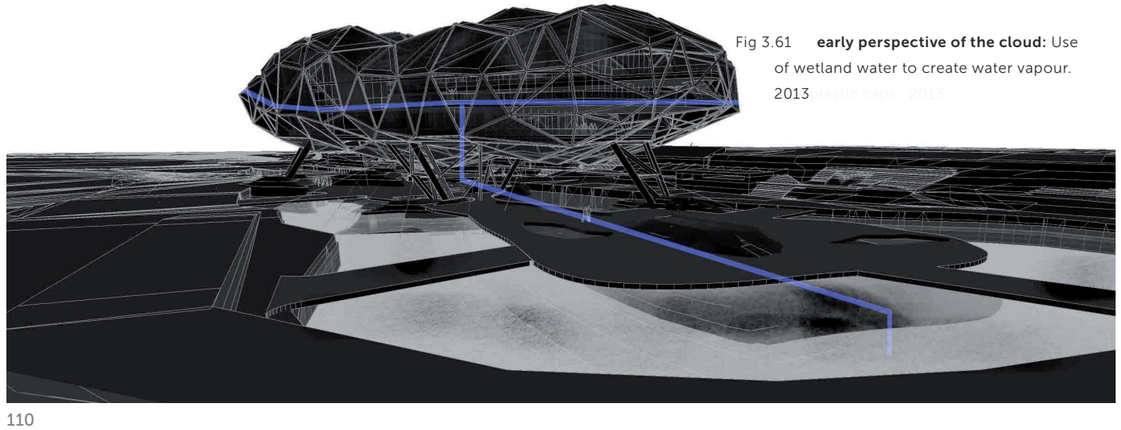


Fig 3.61 **early perspective of the cloud:** Use of wetland water to create water vapour. 2013

Fig 3.62 **Kamfers Dam Flamingos:** [online] < http://www.birdlife.org.za> . August 10th, 2013

Fig 3.63 **Kamfers Dam Flamingos:** [online] < http://www.birdlife.org.za> . August 10th, 2013

Fig 3.64 **Early landscape plan showing islands for birds:** drawing. 2013

The first developed cloud

ITS TYPOLOGY AND WHY IT CHANGED

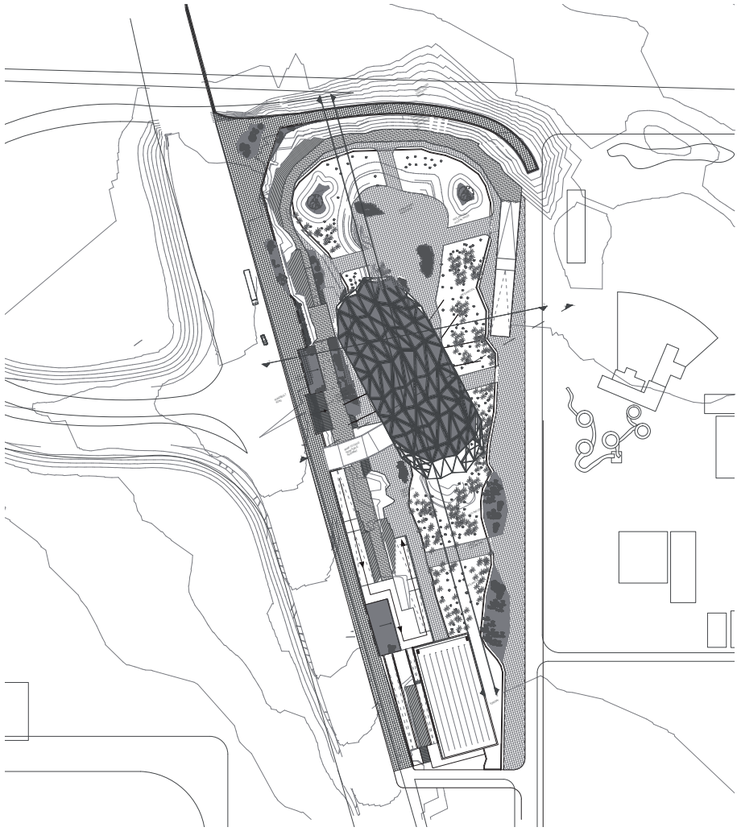


Fig 3.65 **Early roof plan:** drawing.

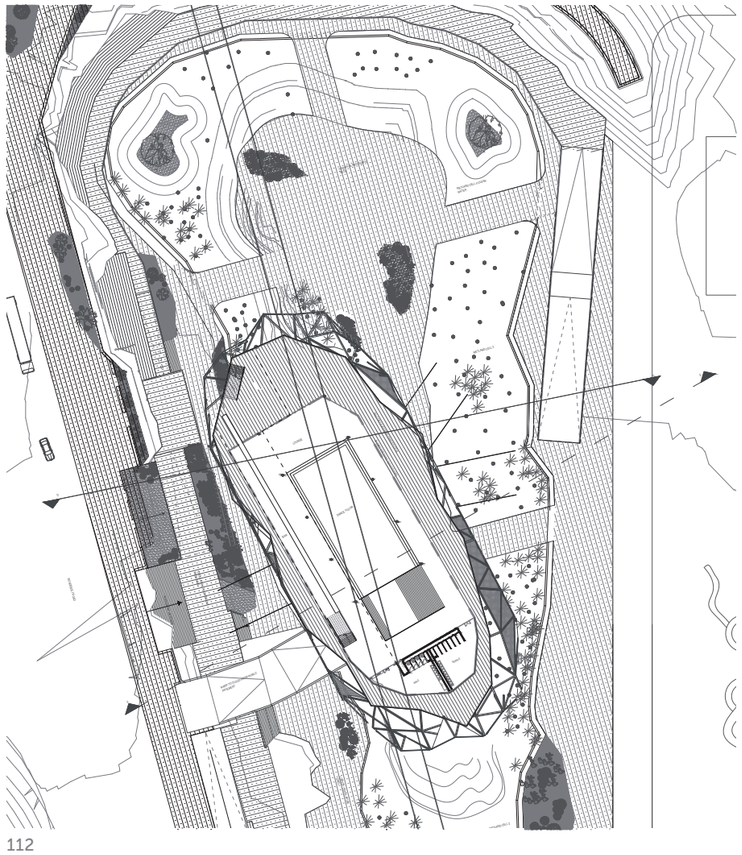


Fig 3.66 **Club level plan:** drawing.

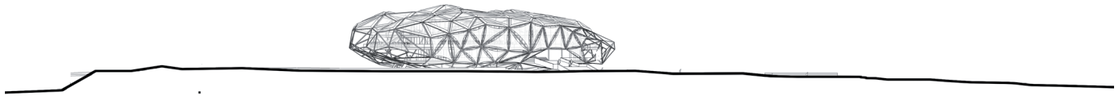
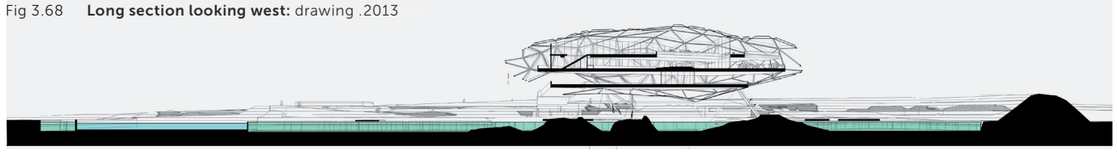
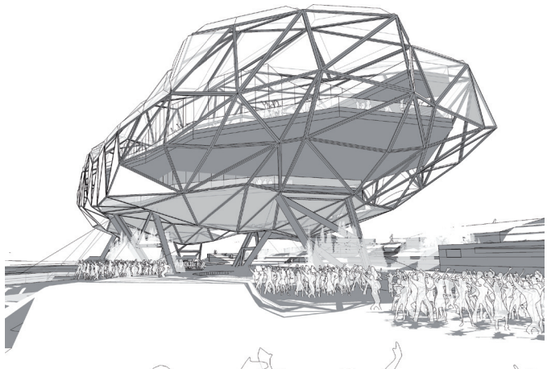


Fig 3.67 **East Elevation:** drawing. 2013

Fig 3.68 **Long section looking west:** drawing .2013





THE CLOUDS FIRST FORM AND WHY IT CHANGED

The cloud's first typology was monolithic. Although its form mimicked that of a natural cloud, its interior did not. The space inside presented a large volume surrounded by a decorative skin. One can see this strategy in section. In the plan, the cloud/ club tends to be serving as a blanket to the wetland below, preventing sun from reaching those areas of the ecosystem. The space below the cloud was dark and uninviting to an eager youth crowd looking to dance. In the final design of the cloud\ club, the strategies taken to deconstruct this previous rigid object included studies related to sunlight, circulation and adding variety to the section.

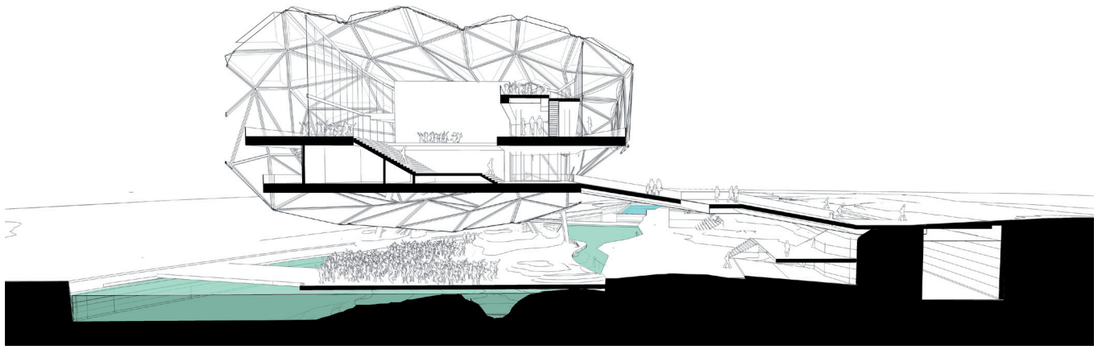
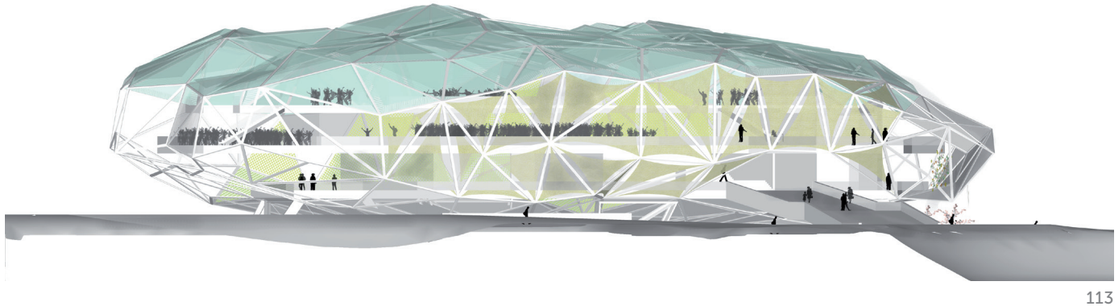


Fig 3.69 **Perspective section:** drawing. 2013

Fig 3.70 **West elevation:** drawing .2013



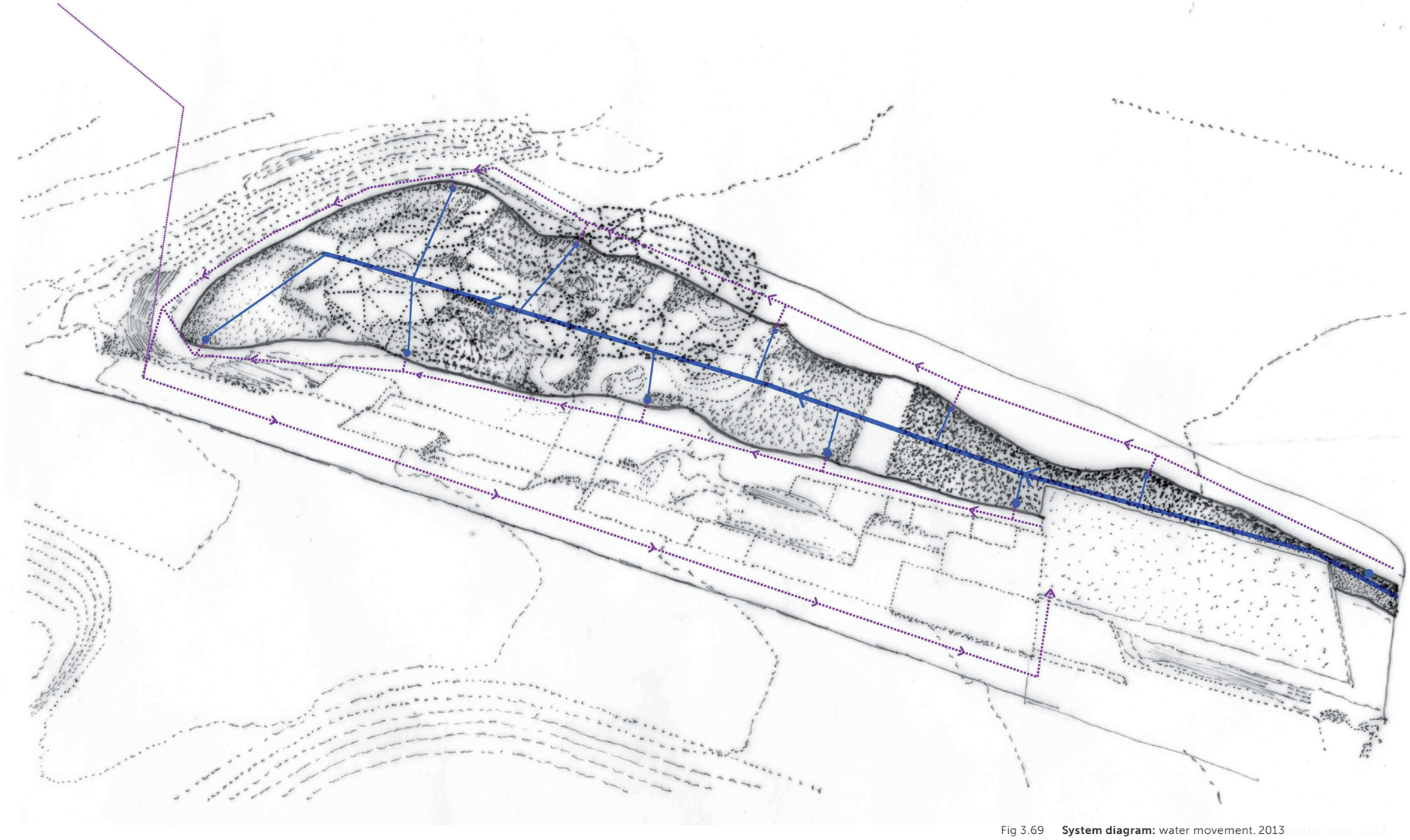
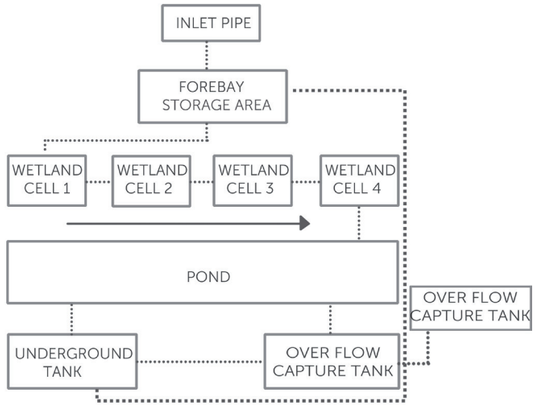


Fig 3.69 **System diagram:** water movement. 2013 Plastic caps . 2013

Fig 3.70 **Flow diagram:** wetland process .2013 Old



Program Development- Constructed wetland

The constructed wetland at Party Sanctuary is 270m in length and 85m in width at its widest and 8m at its shortest end. This constructed wetland has various depths and receives storm water for treatment. The different depths (micro topography) allows for different, yet dense wetland cover. This wetland environment promotes "gravitational settling, biological uptake, and microbial activity" (Design specification no.13) There are specific feasibility and design applications requirements which needed to be considered before implementing a constructed wetland. These requirements became informants for the design of the wetland when considering area, volume, depth, size and location. (Hoffman et al, 2011)

SEQUENCE OF WATER FLOW

The constructed wetland at Party Sanctuary is a pond-wetland combination design, which is comprised of zones. These zones in sequence of flow are called: the Forebay; wetland cell 1; wetland cell 2; wetland cell 3; pond. (See fig on pg 119). Water will be received from an existing storm water inlet pipe from which it will be accepted into the pre-treatment forebay (See fig 3.77 on pg 119). The forebay consists of storage area for water capacity, and a grill or weir to trap sediment before the water moves to the wetland cells. The forebay has a concrete floor finish for the prevention of sediment remains. By a process of both sub-surface flow beds and surface flow beds, the water flows and is cleaned simultaneously. Sub-surface flow beds include horizontal flow beds (HFB) and vertical flow beds (VFB) each method cleaning the water by de-nitrification and nitrification.[1] Thereafter the clean water will move into a pond which is the last zone of the constructed wetland at Party Sanctuary.

1. "As the oxygen transport into HFBs is limited, enhanced nitrification cannot be expected. On the other hand denitrification can be very efficient, even at very low carbon to nitrogen ratios. The produced nitrate can be reduced under anoxic conditions by heterotrophic bacteria to nitrogen (N2); this is called denitrification."(Platzer, 1999) "In VFBs with sufficient oxygen supply, ammonia can be oxidised by autotrophic bacteria to nitrate; this process is called nitrification. Nitrification depends strongly on oxygen supply. Often a combination of VFB followed by a HFB and flow recirculation is used when nitrogen removal is required." (Hoffman et al, 2011)

.... Because the water being expelled into the natural wetland is clean, it will not do any harm to the ecosystem...

From each wetland cell, an overflow pipe is provided which will run with the natural gradient of the land to the storage tank. If the underground storage tank reaches its capacity, after re-circulating the water through the wetland, the excess water will flow via an overflow pipe to the existing pipes situated underneath the N12 highway which terminate at the Natural wetland just north of the site. (See fig 1.50). Because the water being expelled into the natural wetland is clean, it will not do any harm to the ecosystem, but rather provide clean water which ultimately ends up in the dams and lakes of Boksburg. (Hoffman et al, 2011)

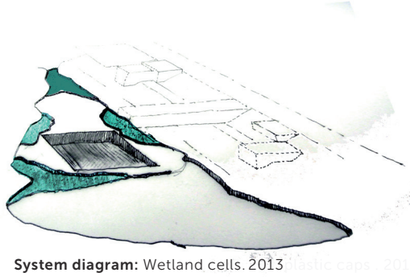


Fig 3.71 **System diagram:** Wetland cells. 2013

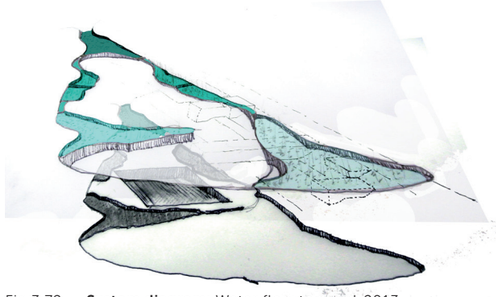


Fig 3.72 **System diagram:** Water flow to pond. 2013

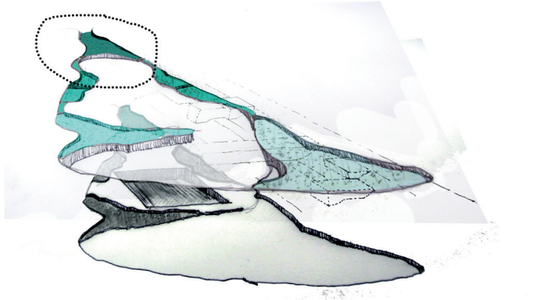


Fig 3.73 **System diagram:** Wetland cells. 2013

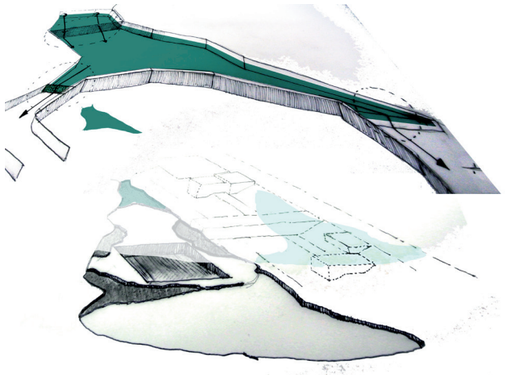


Fig 3.74 **System diagram:** Forebay. 2013

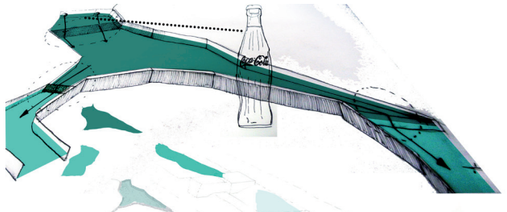


Fig 3.75 **System diagram:** Weir and steel grid filter to retain large objects. 2013

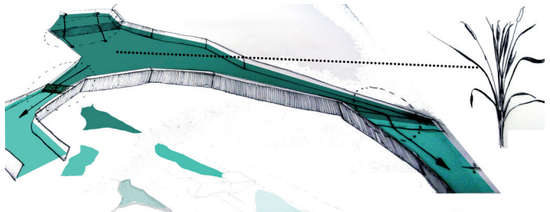


Fig 3.75 **System diagram:** Horizontal flow beds and Vertical flow beds, reeds as another means of filtration. 2013

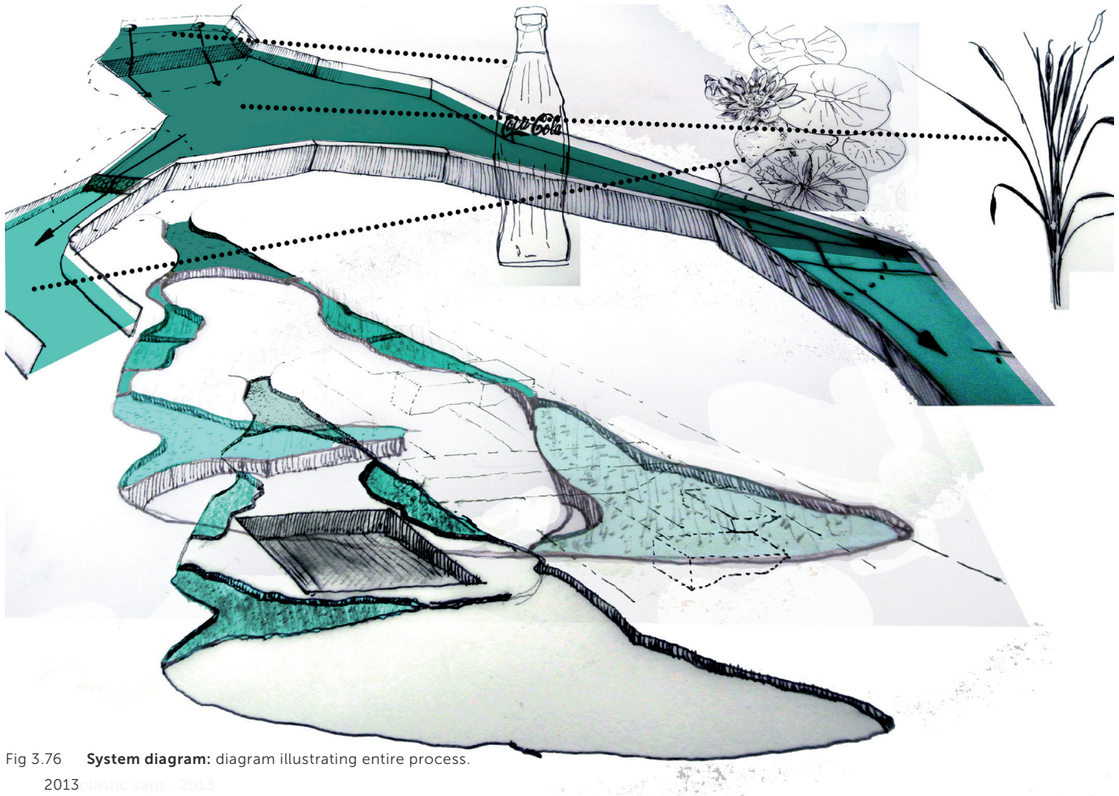


Fig 3.76 **System diagram:** diagram illustrating entire process. 2013

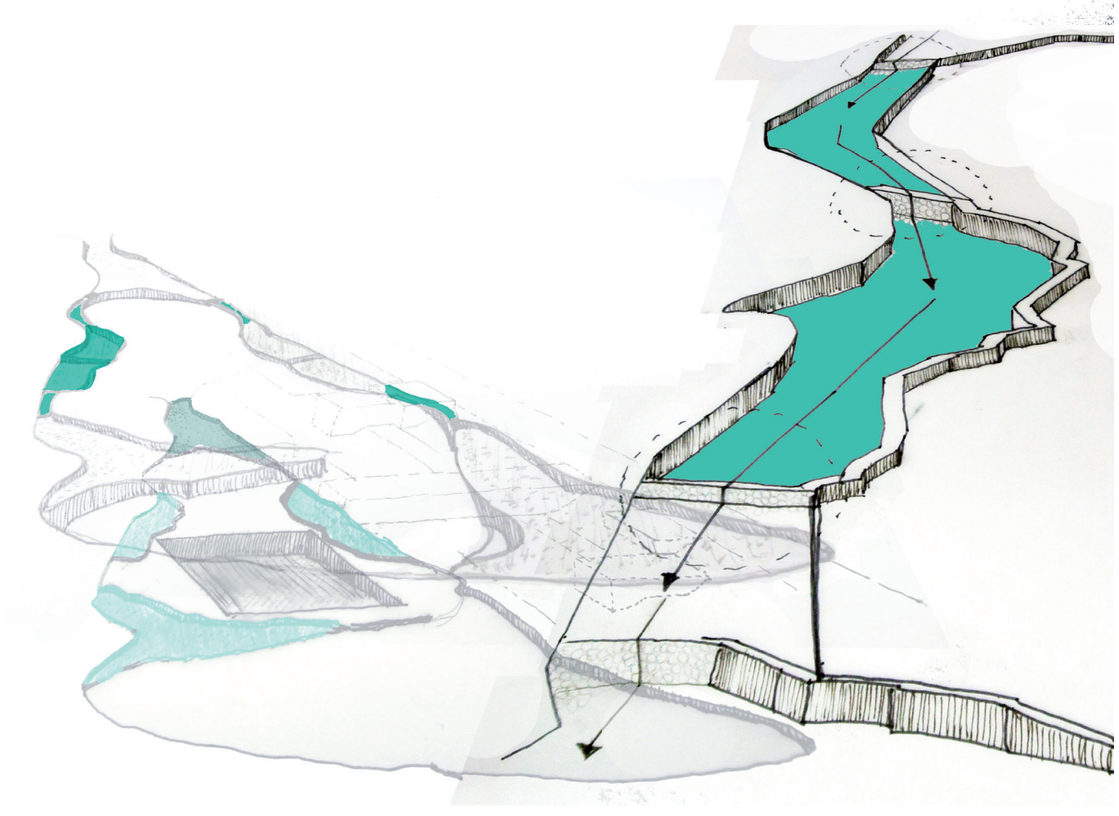


Fig 3.76 **System diagram:** Vertical flow bed. 2013

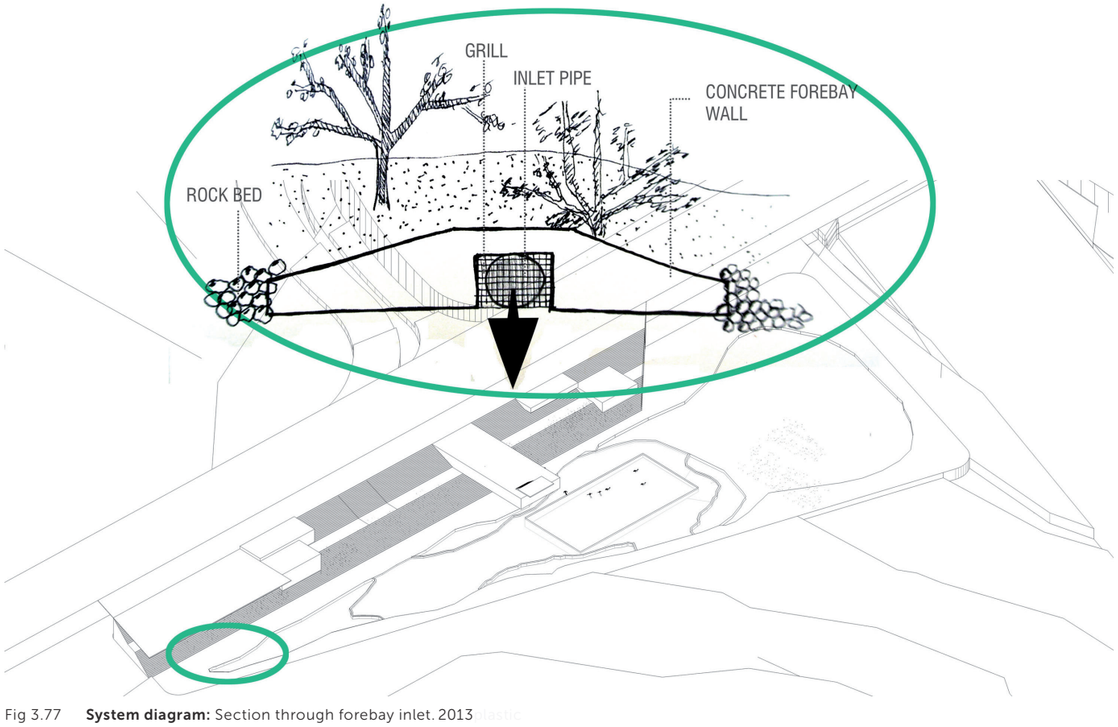


Fig 3.77 **System diagram:** Section through forebay inlet. 2013

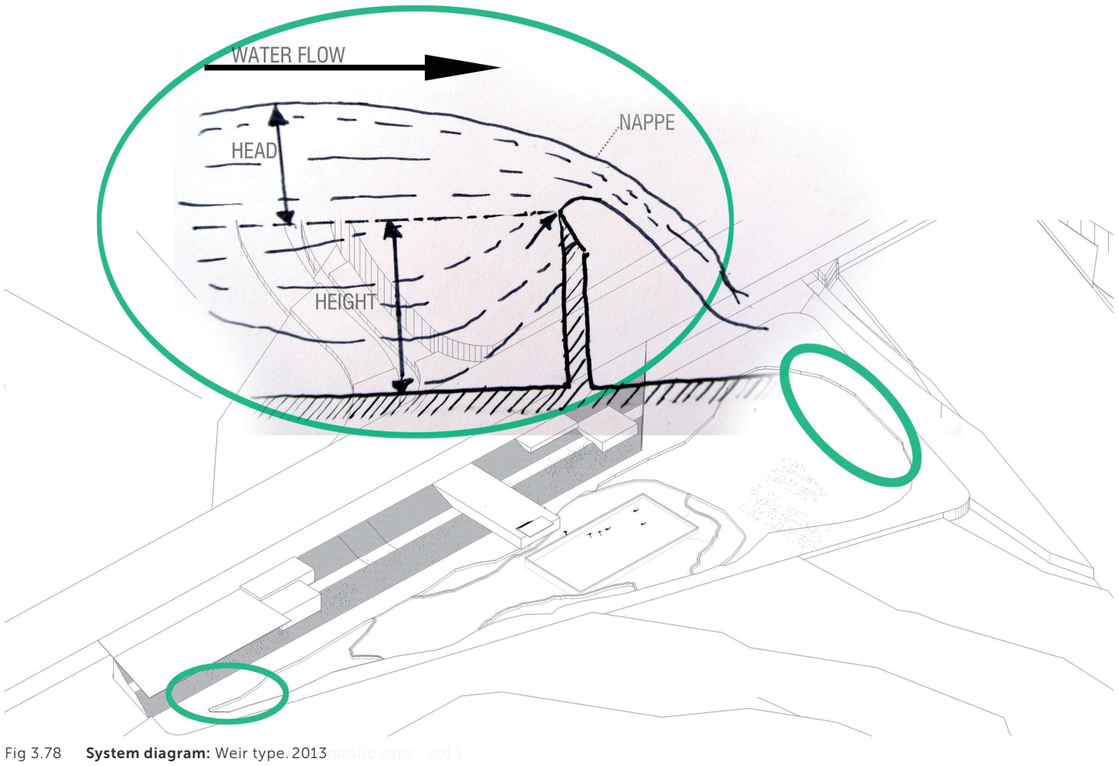


Fig 3.78 **System diagram:** Weir type. 2013

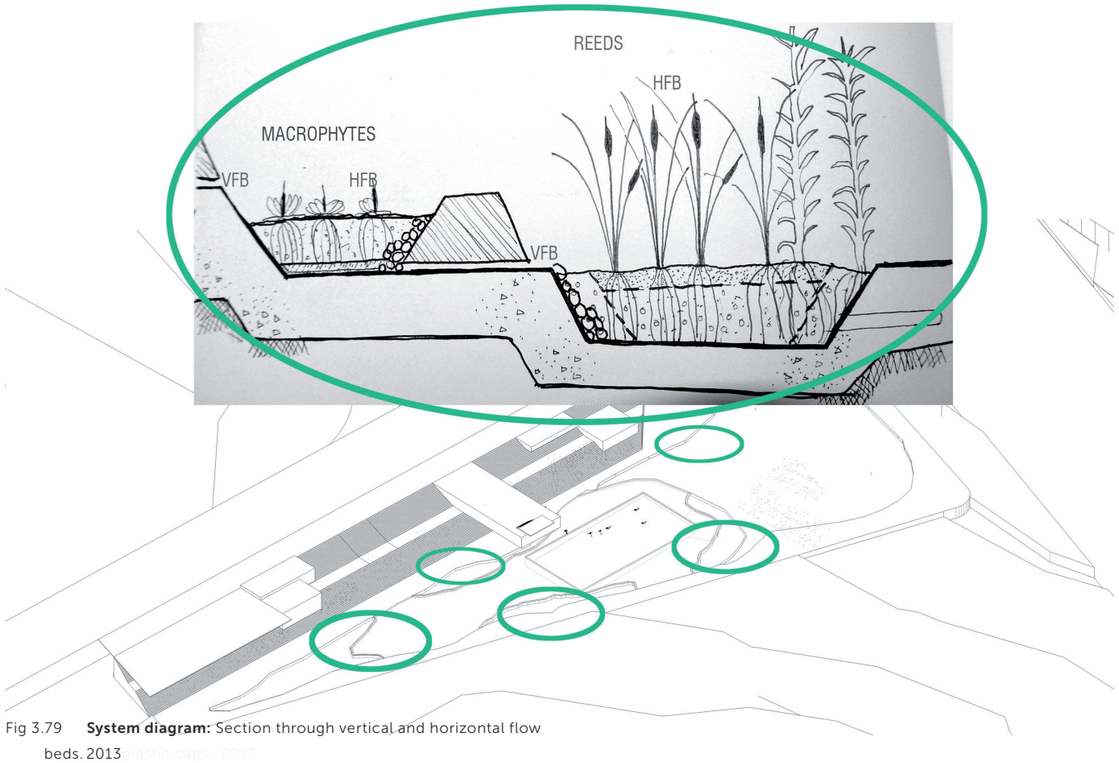


Fig 3.79 **System diagram:** Section through vertical and horizontal flow beds. 2013

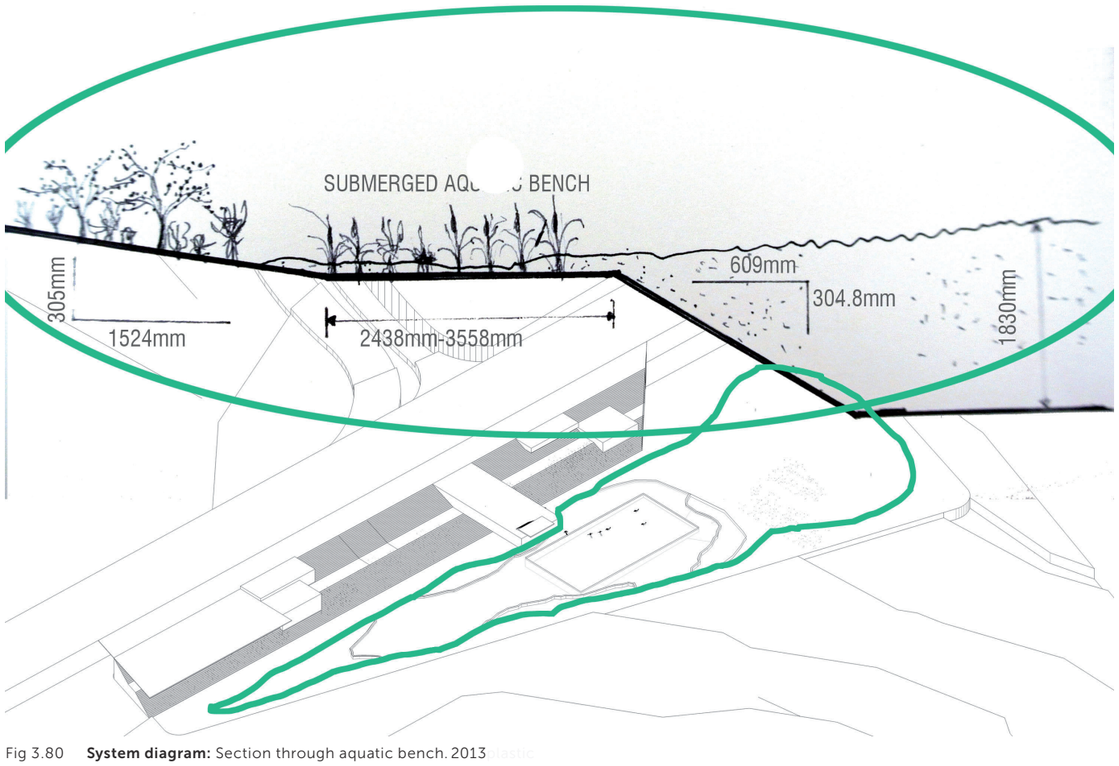


Fig 3.80 **System diagram:** Section through aquatic bench. 2013

COMPOSITION/MAKEUP

The constructed wetland is home to many different plant species which aid in the cleaning process-"They provide an appropriate environment for microbial growth and significantly improve the transfer of oxygen into the root zone, which is part of the filter bed" (Hoffman; Winker, 2011). These plants include: macrophytes (see fig below) which are aesthetically pleasing and welcome birds and frogs; reeds which provide the wetland with a large network of roots and rhizomes[1], which is imperative for HFB (Horizontal flow beds) because of the important need for oxygen.

Fig 3.81 **Macrophytes:** floating plants. 2013

Fig 3.82 **Reed bed:** photograpk taken at Johannesburg Zoo constructed wetland.2013

1. A continuously growing underground horizontal stem which puts out lateral shoots and adventitious roots at intervals.(source: the Oxford English Dictionary)

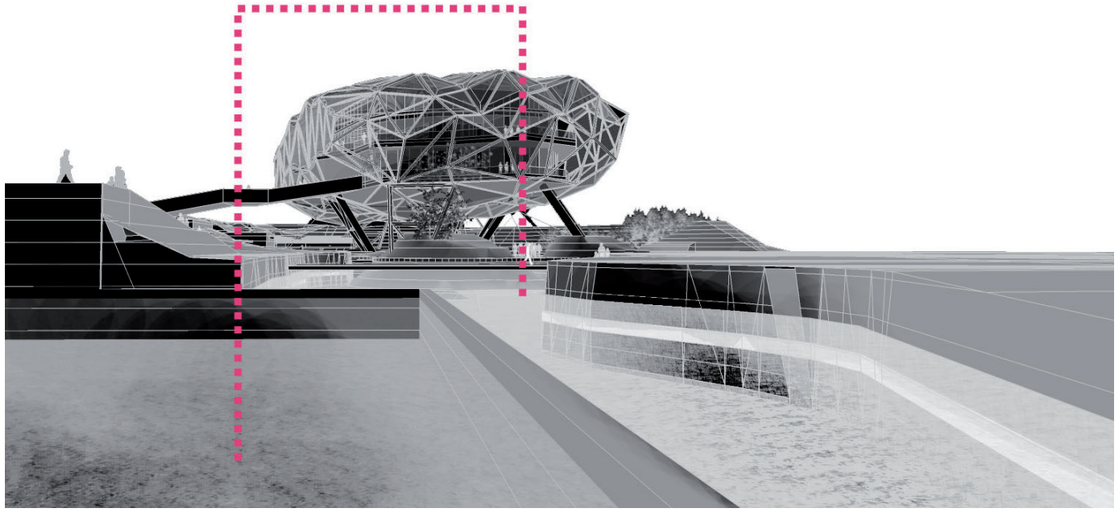


Fig 3.81 **Visual connection:** early perspective. 2013

CONNECTION TO OTHER ELEMENTS

The constructed wetland is connected to all the other elements and substances which this thesis project is comprised of. If a physical connection is not visible then its links lie in the interrelationships that exist. The Olympic swimming pool is connected to the constructed wetland via underground feeder pipes and pumps, yet a visual connection, when one is using the pool, to the wetland is present. (See fig 3.81). The cloud is connected to the constructed wetland by position, water and their interrelationship. (see page 139).

Fig 3.82 **site- looking onto Rondebult from Wild Waters:** Panaramic. 2013 Plastic caps . 2013

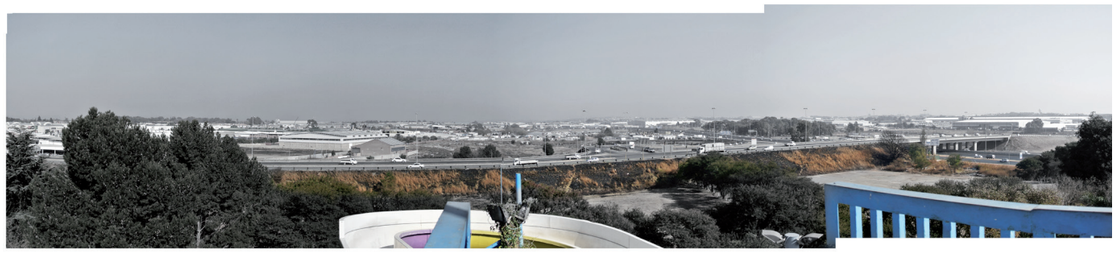


Fig 3.83 **Site landscape seen from the slide:** panaramic. 2013 Plastic

Landscape

USE OF NATURAL CONTOURS

A varied landscape is created below the cloud and eight metres below Rondebult Road. The Rondebult extension is where the layer of landscape begins, from here it either drops to envelop seating, stairs, circulation, hidden buildings and the constructed Wetland; or extends to form new mounds of land which creates a sound and physical barrier to the N12 highway; or disappears and reappears to form the islands which sit within the wetland to host the foliage or platforms.

Fig 3.84 **Site landscape seen from Rondebult Road:** panaramic. 2013 Plastic

Fig 3.86 **N12 highway and site edge seen from Rondebult Road:** panaramic. 2013

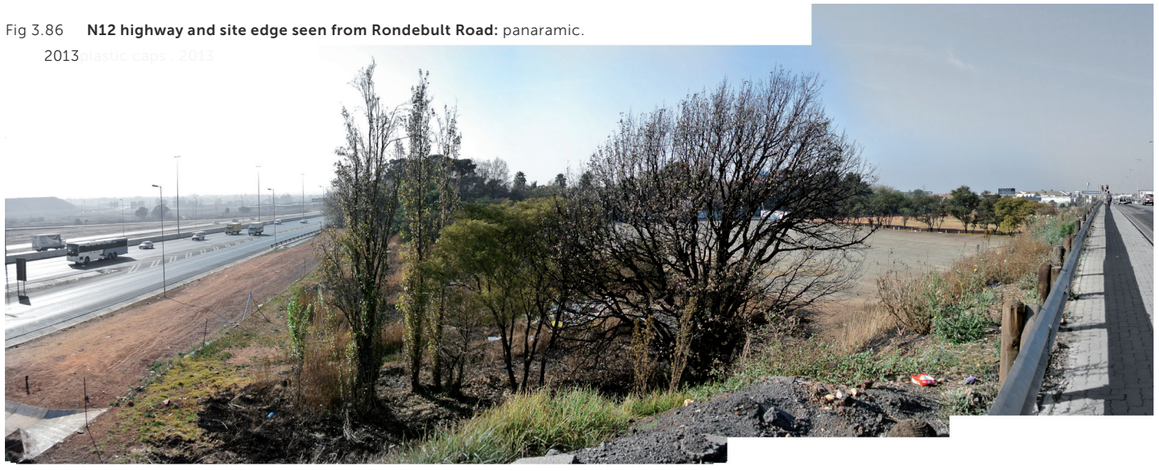


Fig 3.87 **Top north-western corner:** panaramic. 2013

Fig 3.89 **bottom south-western corner:** panaramic from Rondebult pavement. 2013

Fig 3.85 **Early earth works plan of natural and artificial typography:** drawing. 2013

CONSTRUCTED MOUNDS INCLUDING LARGE N12 NOISE BARRIER; HUMAN ISLANDS; BIRD ISLANDS.

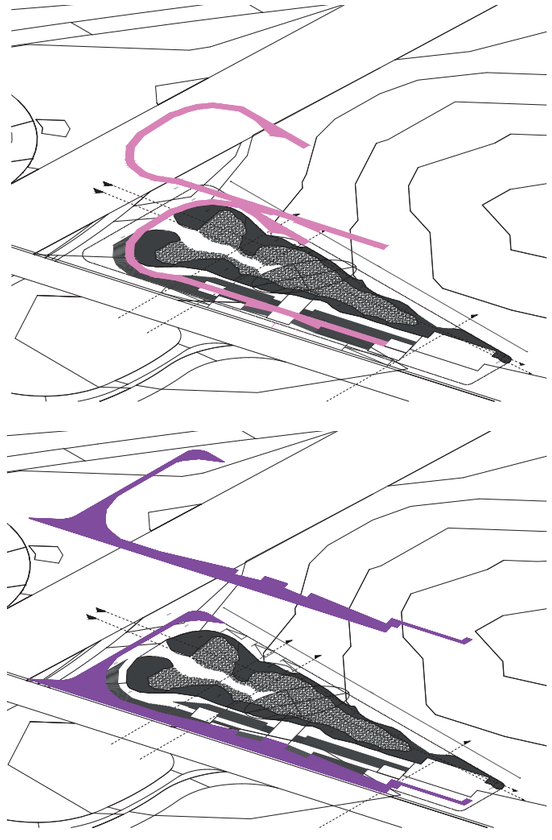
The eight metre high constructed mound mentioned on the previous page hosts a public pathway which is a further extension of Rondebult pavement and allows the public to semi-circulate the arena without actually entering the site through the controlled access points. The shaded public pathway is the perfect place to sit and read a book; watch the humans below participating in hedonistic activities; watch the bird life that will visit the site for roosting, perching, feeding or nesting; or simply to listen to the water falling below their feet to invoke a deep sense of relaxation and a momentary escape from reality. This threshold is very important to my proposal because of the stage of transition it offers to the subject. It doesn't completely force the subject to become a part of the activities below but does give a visual connection to the 'below'-the wetland and to the 'above'-the Cloud.

.... the choices of materials for these gradients are gabion baskets, gabion mattresses and gabion boxes...

EDGE CONDITIONS (HIGHWAY CONSTRUCTION)

The two important edges to my site are hard, concrete, tarred surfaces which host the fast, loud, and polluting cars, trucks and buses. The N12 highway borders the north most portion of my site and Rondebult borders the West longer edge of my site. Because of these important commuter carpets, highway-edge construction was studied through a method of observation. The choices of materials for these gradients are gabion baskets, gabion mattresses and gabion boxes depending on the immediate context of the slope. This solution provides a retaining wall system that is strong, reduces speed of water flow, allows vegetation to grow in between stones, is easily installed with the use of natural or quarried stones obtained locally, and is pleasing to the eye

The following circulation diagrams illustrate earlier decisions related to movement in and around the site. The purple represents the public pavement of Rondebult road as well as the varied extension of this pavement into the site. This extension allows for alleviation of crowd traffic when an event occurs. The pink layer shows an established path for the users to access the landscape facilities. Once can only venture on this pathway once they have gone through the controlled access points which will later be more clearly illustrated. The green layer represents the lowest circulation level which surrounds the constructed wetland and bares the means to enter the accessible platforms within the wetland which act as a series of dance floors during a large party. The drop from the purple layer down to the green layer was treated with the above methods of gabion construction.



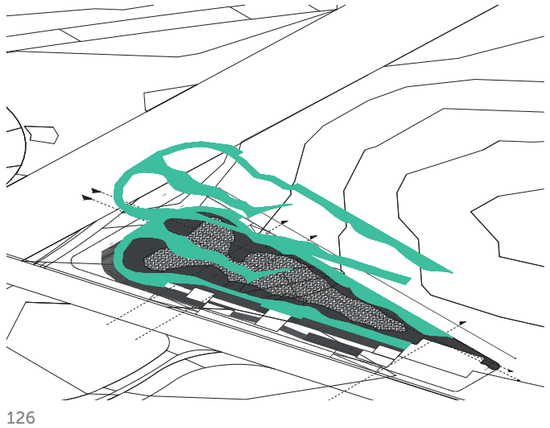


Fig 3.90 **System diagram:** Circulation levels. 2013

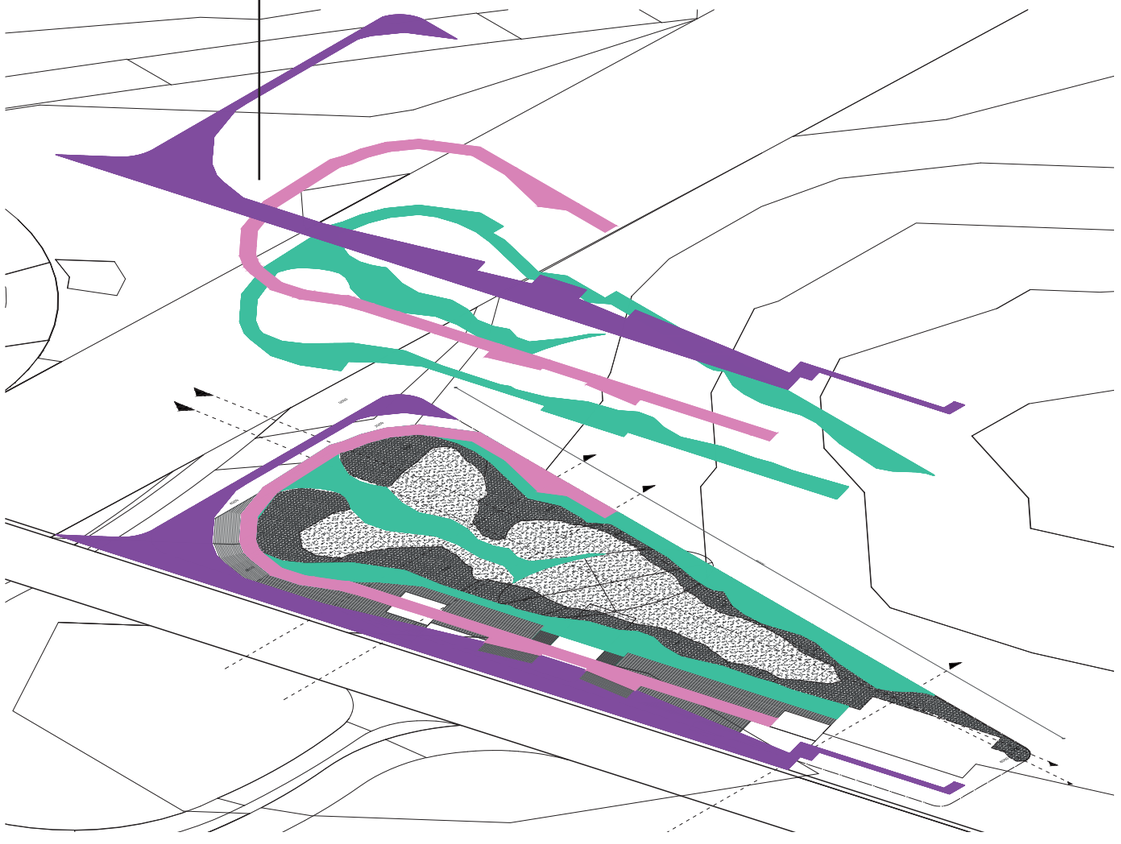


Fig 3.91 **System diagram:** Circulation levels.

.... These trees are also great nesting sites for birds and this plant type also attracts butterflies. ...

PLANTS

This thesis provides spaces suitable for its' inhabitants to mutually depend on one another. Trees and plants at 'Party Sanctuary' include photosynthetic species, tiny bacteria, woodlice and millipedes in and around the wetland, which are the decomposers. The two types of organisms act interdependently of one another, each nurturing on the bi-product of the other. In the same way the hard architecture will become feeders to another softer architecture, for example the cloud will collect water for the wetland but will also use the wetlands water to squirt water vapour and in doing so will cool its surroundings and users (ritual subjects). Another example would be the niches that every organism will inhabit in "cooperative arrangements with other organism sustaining the biosphere" (McHarg, 1992:121) and so the man-made structure of the cloud will, over time, become a space for nature as well as humans to occupy.

The plants that I have chosen for the landscape are suitable for Highveld weather conditions as well as wetland conditions. Each plant or tree was chosen for a specific reason either related to the plant's needs, the aesthetic appeal, the plants ability to attract bird or insect life; and the scents that they will let off. Many plants from the aloe family have been chosen for the sloped areas engulfing the wetland and not the areas part of the wetland. The reason for implementing pants from the aloe family is because they are able to survive dry conditions.

GRASSLAND

Most of the landscape of Party Sanctuary will be planted with grasses suitable for the Highveld. As the flora approaches the aquatic bench of the constructed wetland, the species will change to better suit the fall of the land and the wet conditions due to the submerged aquatic bench portion. See fig. The grass species chosen to be planted at Party Sanctuary are the Hyparrhenia hirta and Sporobolus pyramidalis. The Hyparrhenia hirta is commonly known as Coolatai grass or common thatching grass. The Sporobolus pyramidalis's commonly known as the Giant Rat's tail grass. Both species come from the Poaceae family. Both species attract bird life, emit fragrance and can survive in a dry to medium climate. Anthropogenic variations have caused the regions which host these species, to deteriorate, causing the grasslands of the Highveld to be threatened. The intention of the Party Sanctuary is to create a constructed environment worthy of hosting these species, which will breach the threshold of the existing vacant left over space of the site. (worldwildlife, 2013)

GROUNDCOVER

The ground-cover of the Party Sanctuary is comprised of the Agapanthus Nana, the Aloe dyeri and the Aristea major. The Agapanthas Nana (Miniature blue\white Agapanthus) attracts butterflies and birds and has a white flower. This species is evergreen and fast growing. It is also frost resistant and can survive in the sunny areas of Party Sanctuary. This ground-cover is also water wise. The Aloe dyeri attracts birds, hosts many insects and has a red flower. This ground-cover grows fast and is evergreen. This species will survive in the shaded areas of Party Sanctuary. Aristea major ground-cover is especially suited for wetland regions. The flowers it hosts are blue and attract insect eating birds. This species grows in the summer time, exciting the users of Party Sanctuary for change of season. The last species of ground cover used is the Setaria megaphylla (Broad-leaved Bristle grass). This special evergreen, fast growing species is resistant to frost and can grow in the shaded areas of Party Sanctuary. Dogs like to eat this plant and so will attract dog owners to the public space. Aquatic bird-life is also attracted to this species. (Growwild, 2010)

TREE

A tree suitable for wetland environments is the Acacia abyssinica (Nyanga Flat Top). These trees are also great nesting sites for birds and this species also attracts butterflies. This tree will shed its leaves in the winter months creating an alternating picture for the public. An evergreen species well suited for Party Sanctuary is the Syzygium cordatum (Water berry). This tall tree grows well in wetland conditions and attracts birds looking for nesting sites. This species emits a fragrance and grows well in semi-shade to sunny conditions. (Growwild, 2010)

Fig 3.92 **Water Berry:** Sketch after worldwildlife.org . 22nd October

Fig 3.95 **Aristea major ground-cover:** Sketch

Fig 3.96 **Miniature Blue:** sketch

Fig 3.96 **Acacia abyssinica**

Fig 3.97 **Broad-leaved bristle grass:** photograpk taken at

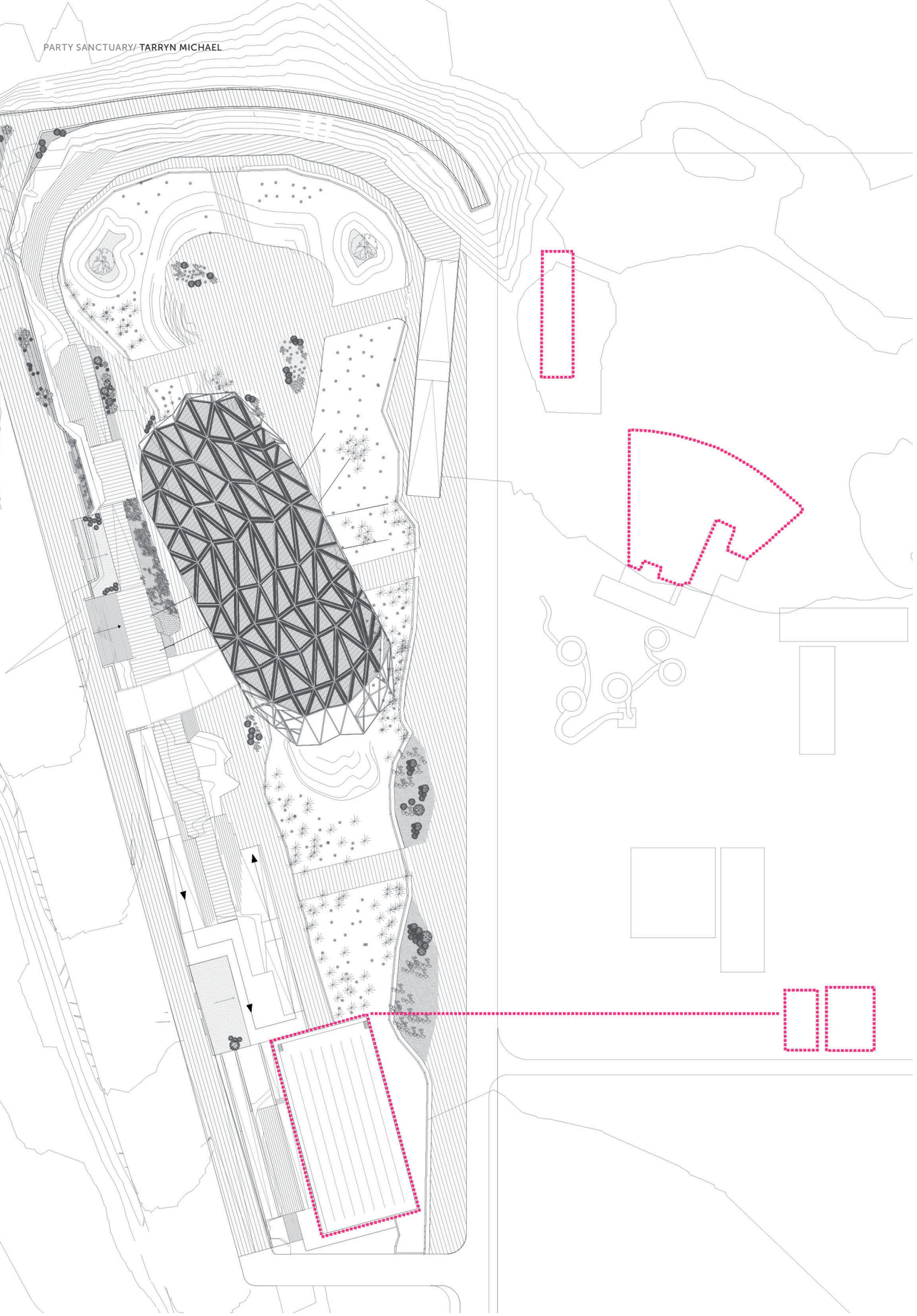


Fig 3.98 **The connection between the pool and the 'Metal Worx' gym at Wild Waters**

Program Development, public pool

OLYMPIC SIZE PUBLIC SWIMMING POOL

The Olympic public pool at Party Sanctuary is located towards the tale portion (inlet area) of the constructed wetland. It lies on axis with other existing sporting activities (Metal Worx Gym) which are located within the Wild Waters complex adjacent to my site. See fig.

PUBLIC ATTRACTION

Wild Waters complex (adjacent site) offers swimming facilities for play rather than exercise. The Wild Waters splash pools are exclusive in that a large entry is requested to enter. The public pool that I have implemented will be a public facility to the inhabitants of Boksburg or East Rand and serves as an inclusive program offering activities promoting health and well-being. Access is controlled through one entrance with a small entry fee like that of Zoo lake public pool, Johannesburg. The reason for its position is to account for two functions/ events occurring simultaneously at Party Sanctuary like that of a performance event within the sanctuary's periphery and a swimming gala at the Olympic size swimming pool. The position also offers the pool full sunlight.

CONNECTION TO THE WETLAND AND PUBLIC REALM

Access to the public pool is granted from The Rondebult extension. As described in the Wetland section, the pool is connected to the wetland via underground pipes and pumps. A visual connection to both the Cloud and the Wetland is also present.

Program Development-the new Cloud

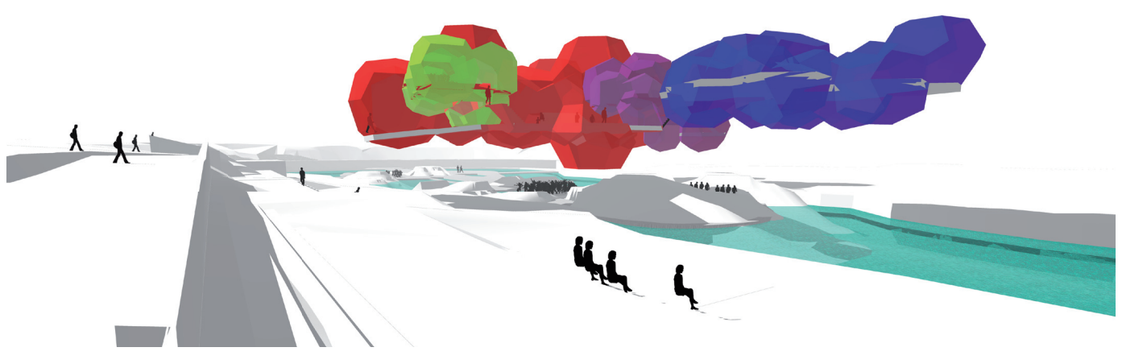
The different Gloops

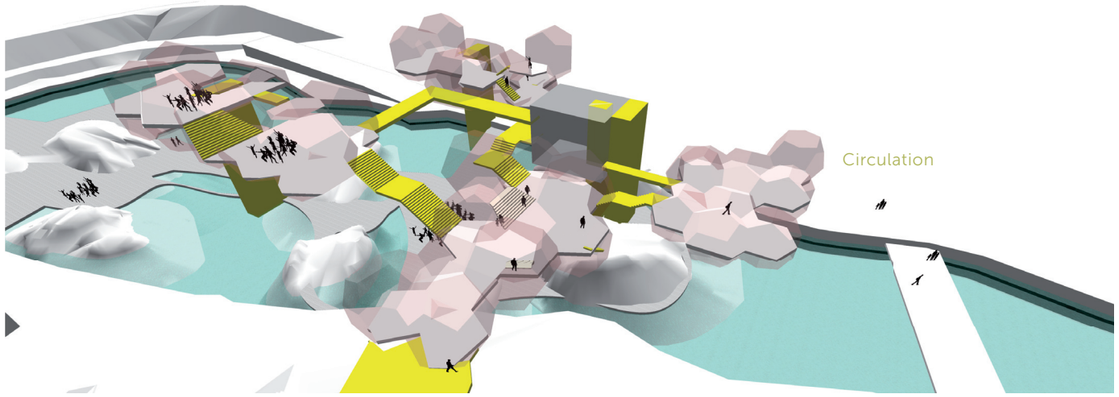
VIP (private gloop)

Lounge (relax gloop)

Main Dance floor (release gloop)

ClubFoyer (arrival gloop)





Circulation

Fire Stair from Main dance floor to lower ground level

Fire stair from VIP to lower ground level

Bridge from Main Dance floor to VIP and to Core

Stair link to Main Dance floor from Foyer

VIP connection to core and foyer

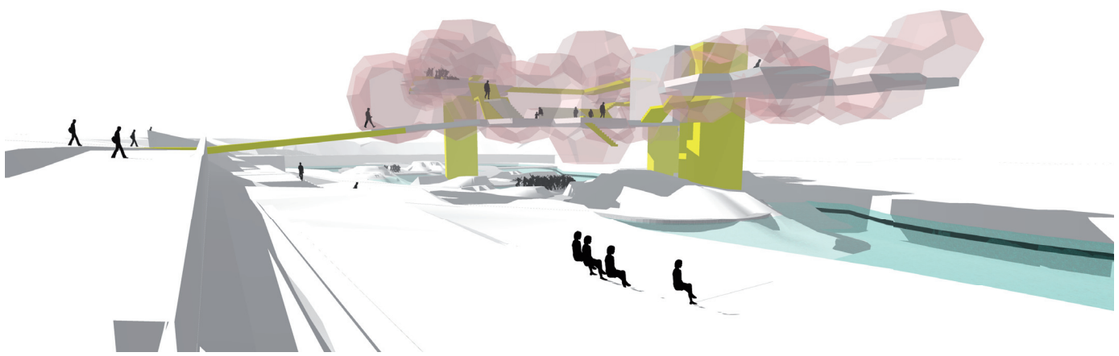
Main tongue into the cloud from Rondebult Road

Goods lift

Fire Stair for core

Bridge from core to chill lounge

Stair link from foyer to chill lounge



Program Development- Structure of the cloud

SPACE FRAME

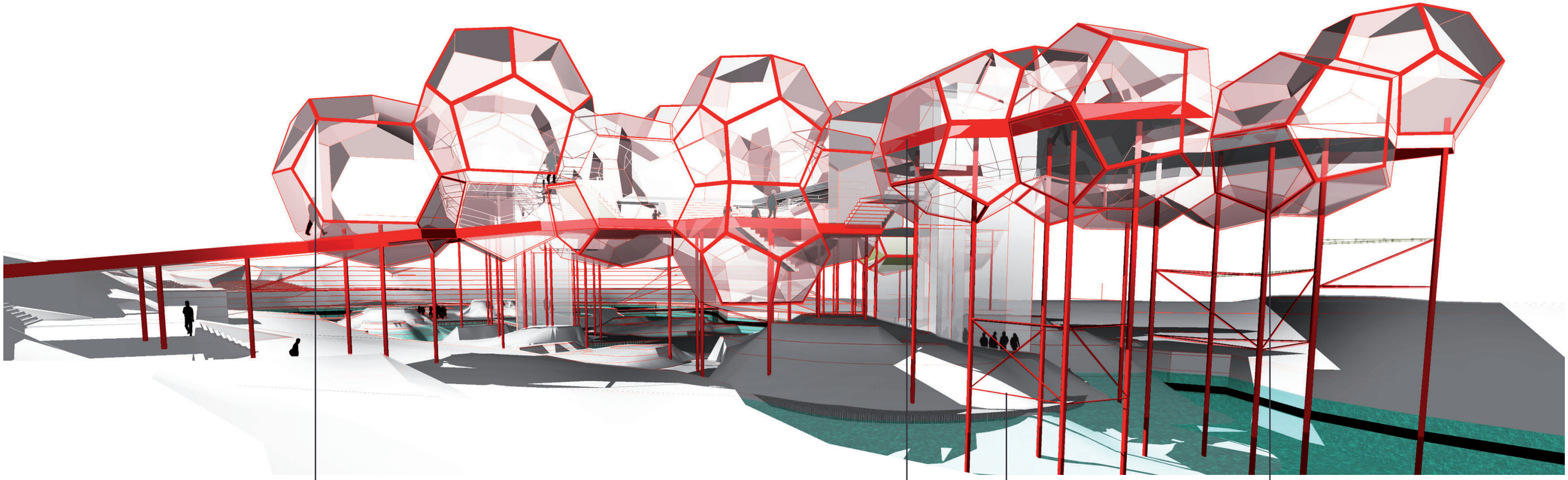
The structure of the cloud consists of a steel space frame created from different polygons stitched together. There are two types of polygons, a dodecahedron (3d pentagon) and a polyhedron (3d hexagon). The structural integrity of the space frame lies in these shapes. The steel frame consists of a 100mm steel sections.

FLOOR SLABS

The space frame is stabilized by the floor slabs. The stitched polygons, which create different forms depending on what they house, hug the reinforced concrete slabs. The reinforced concrete slabs need to be cast as one slab or precast in the same way. The reason for this is because of their support.

STEEL COLUMNS

The concrete slabs site on top of 300mm diameter galvanized steel tubular columns. These columns have an infill of concrete to eliminate buckling, and a foundation. After consulting with an engineer (Dr.K.Li) about the structure of the cloud, bracing between the columns was imperative to counter act live load and wind loads. For the bracing, a series of 20mm pre-stressed cable members has been placed between clusters of columns.



Steel space frame consisting of 100mm steel section members

Pre-stressed cable bracing

300mm diameter steel tubular column filled with reinforced concrete

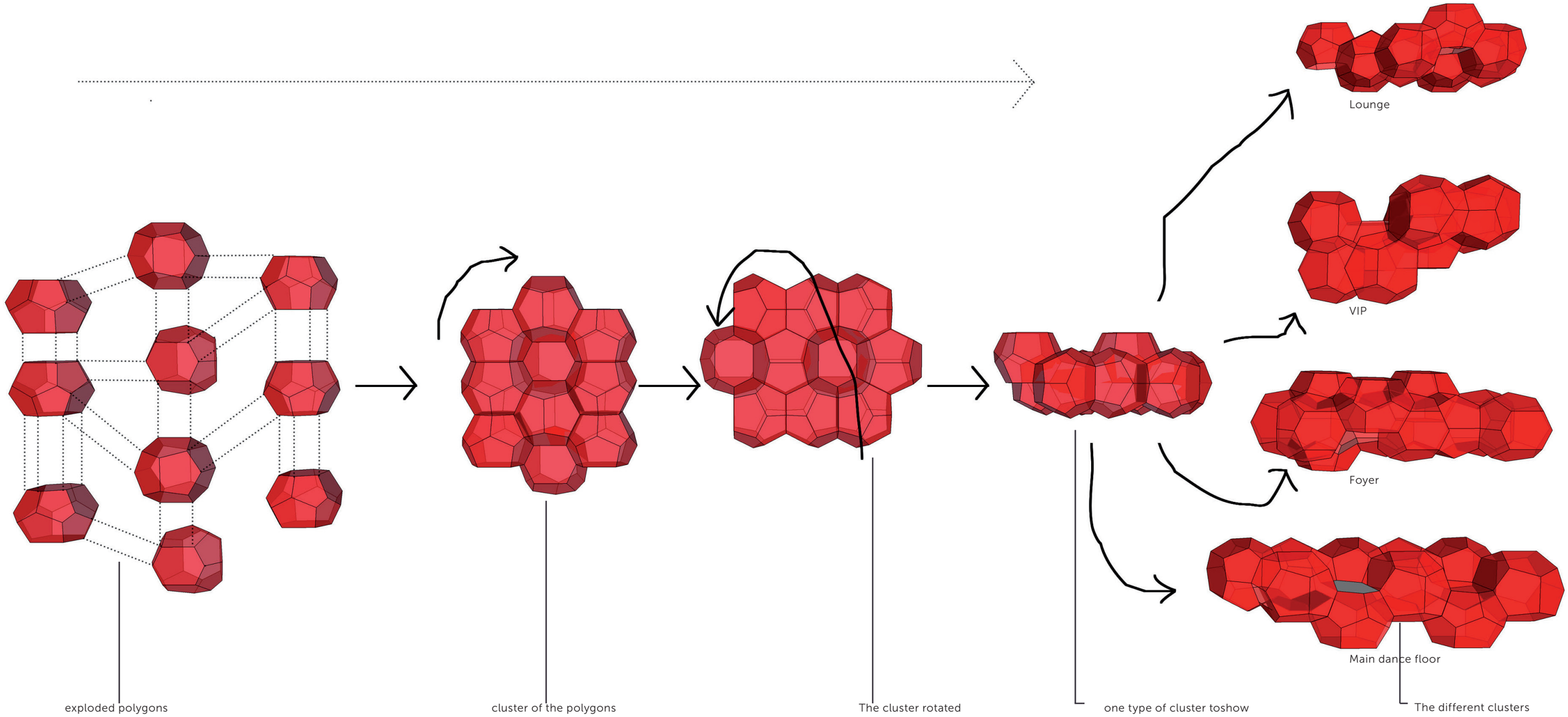
300mm reinforced concrete slab cast as one

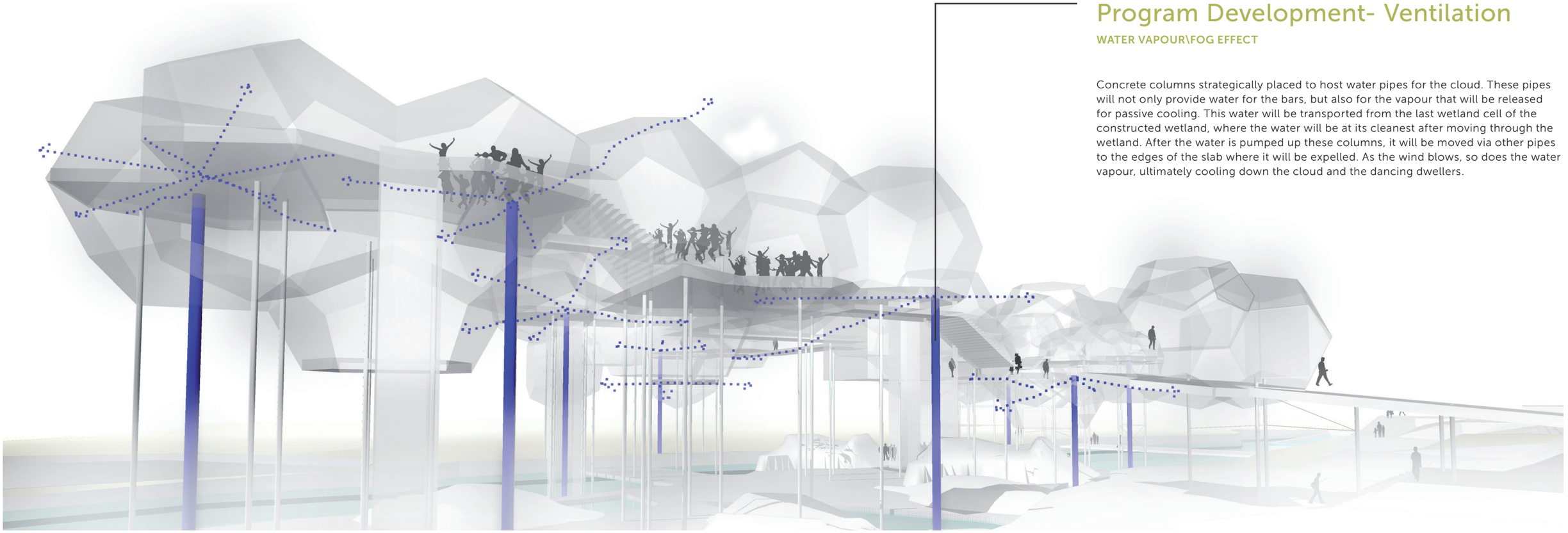
Program Development The form of the cloud

The form of the cloud is informed by the structure, the uses of the clusters, the aesthetic of the cloud, views, sun angles and the interior intensions of the spaces it encased. The space frame, as mentioned before, is reliant on the way the different polygons fit together. This is a complicated process or rotating and alternating between dodecahedrons and polyhedrons. Rhinoceros, a 3d modelling program helped in achieving this seamlessly.

The diagram below shows how the different clusters of polygons were created to produce the different forms for all four massing's of the cloud- the foyer, the dance floor, the VIP and the lounge.

All four of the generated forms for the different uses produce spaces that are double volume. Sometimes the pods within each cluster create balcony space or outdoor dance floors. This typology allows for the panels to be opened, creating roof openings and windows. This aids the cloud in ventilating itself. This will be shown in more detail later.





Program Development- Ventilation

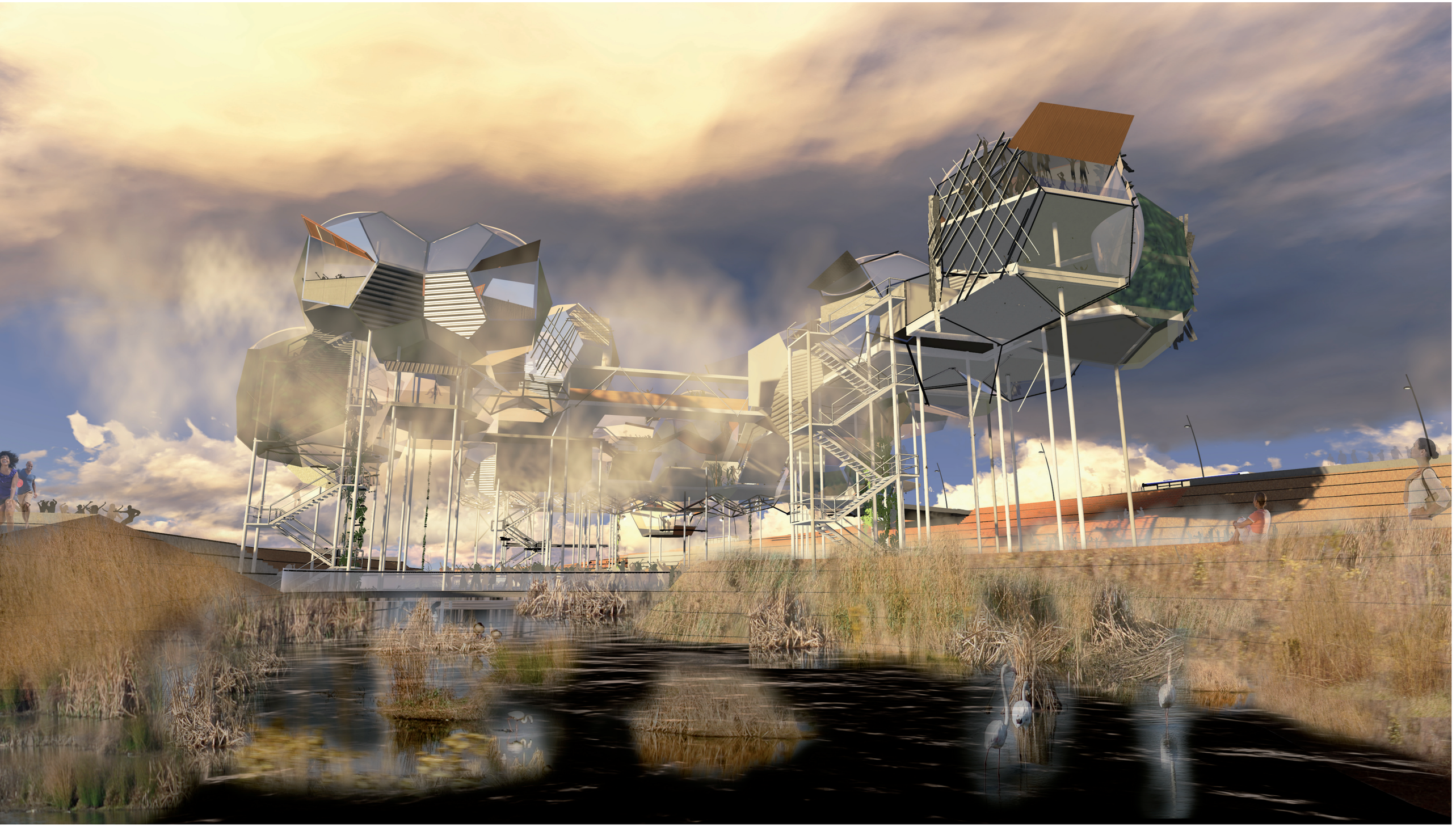
WATER VAPOUR\FOG EFFECT

Concrete columns strategically placed to host water pipes for the cloud. These pipes will not only provide water for the bars, but also for the vapour that will be released for passive cooling. This water will be transported from the last wetland cell of the constructed wetland, where the water will be at its cleanest after moving through the wetland. After the water is pumped up these columns, it will be moved via other pipes to the edges of the slab where it will be expelled. As the wind blows, so does the water vapour, ultimately cooling down the cloud and the dancing dwellers.

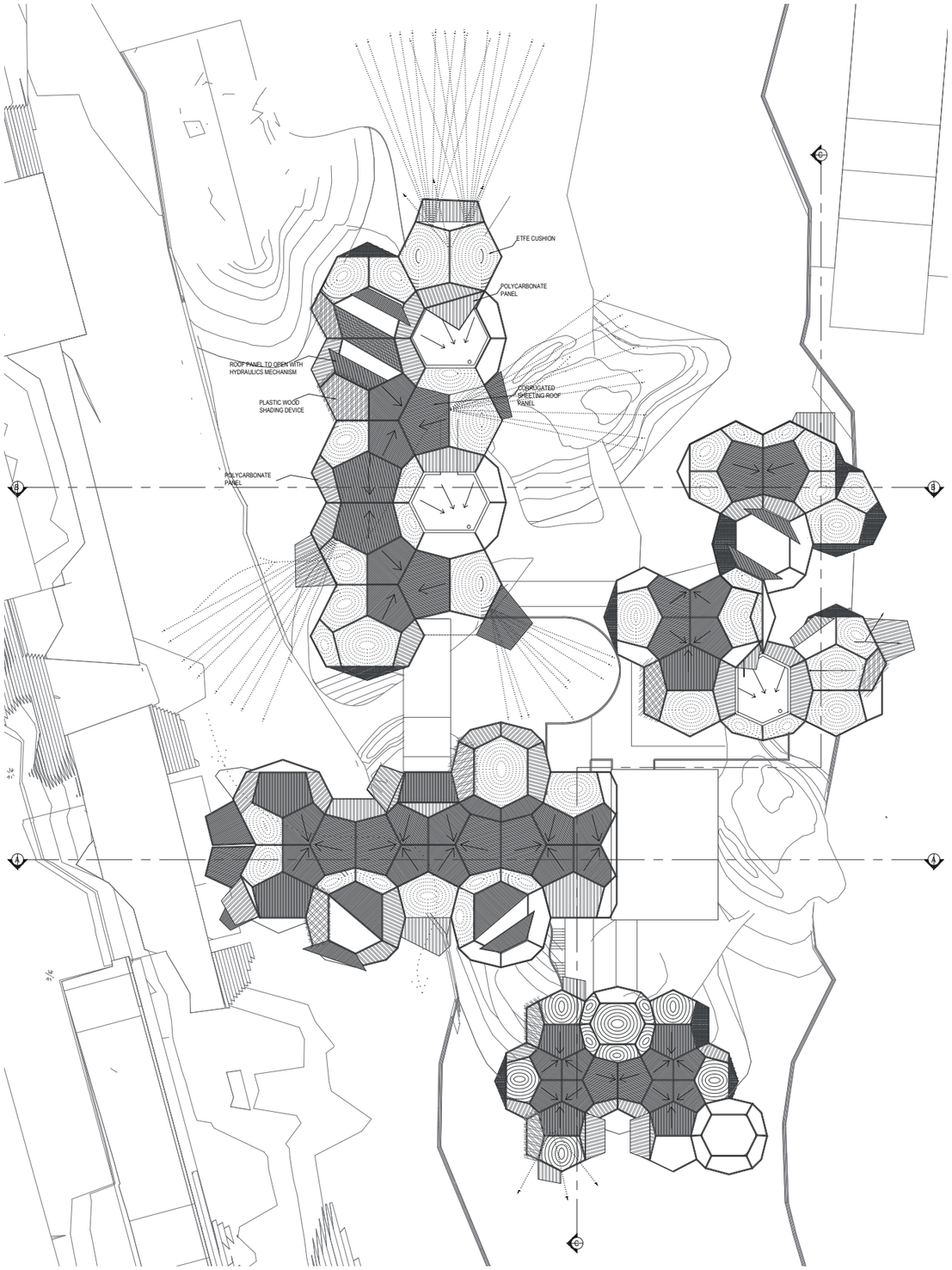
EARLY PERSPECTIVE - BELOW THE CLOUD

D.
Final design

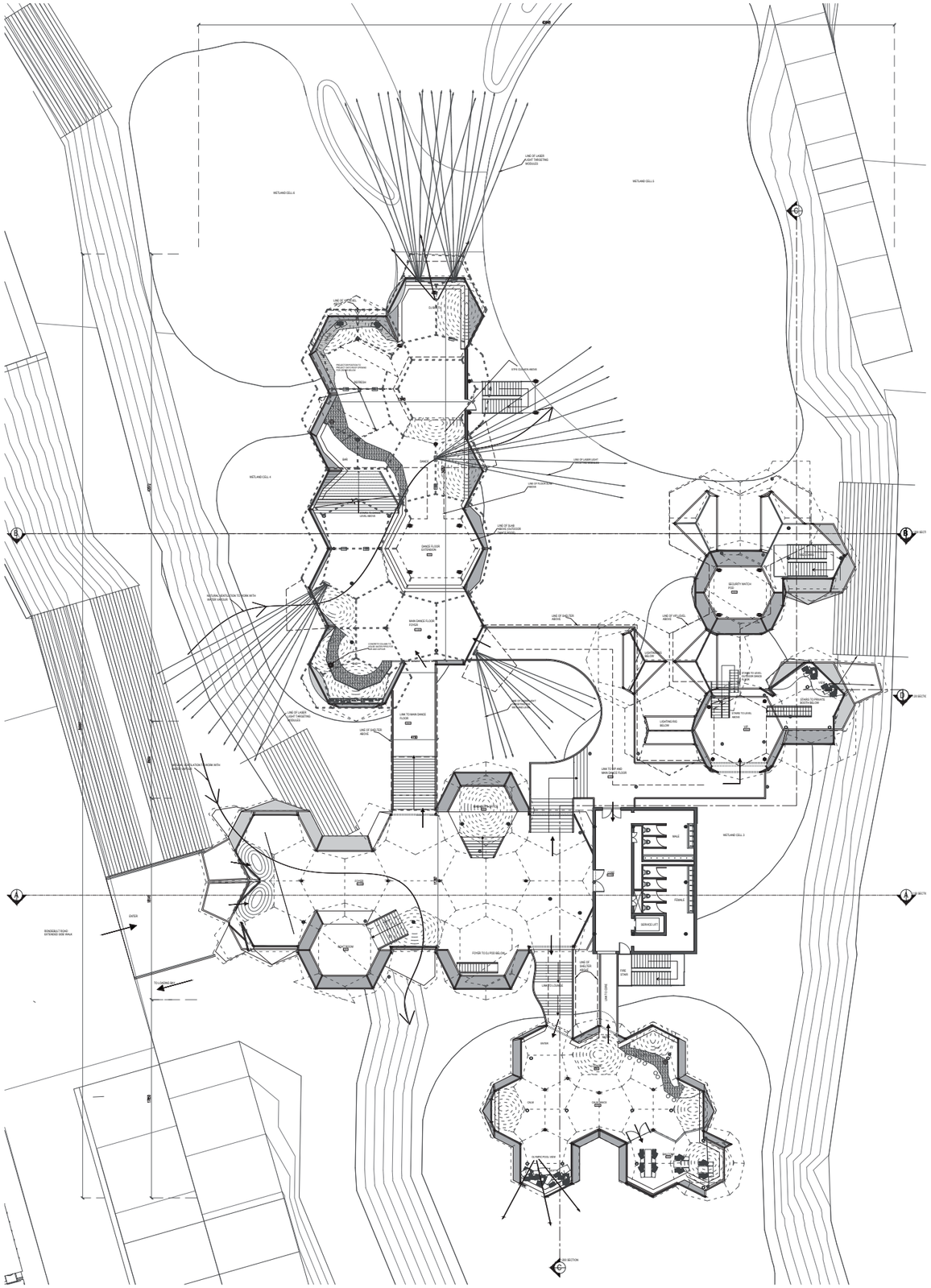
PARTY SANCTUARY



LANDSCAPE PLAN

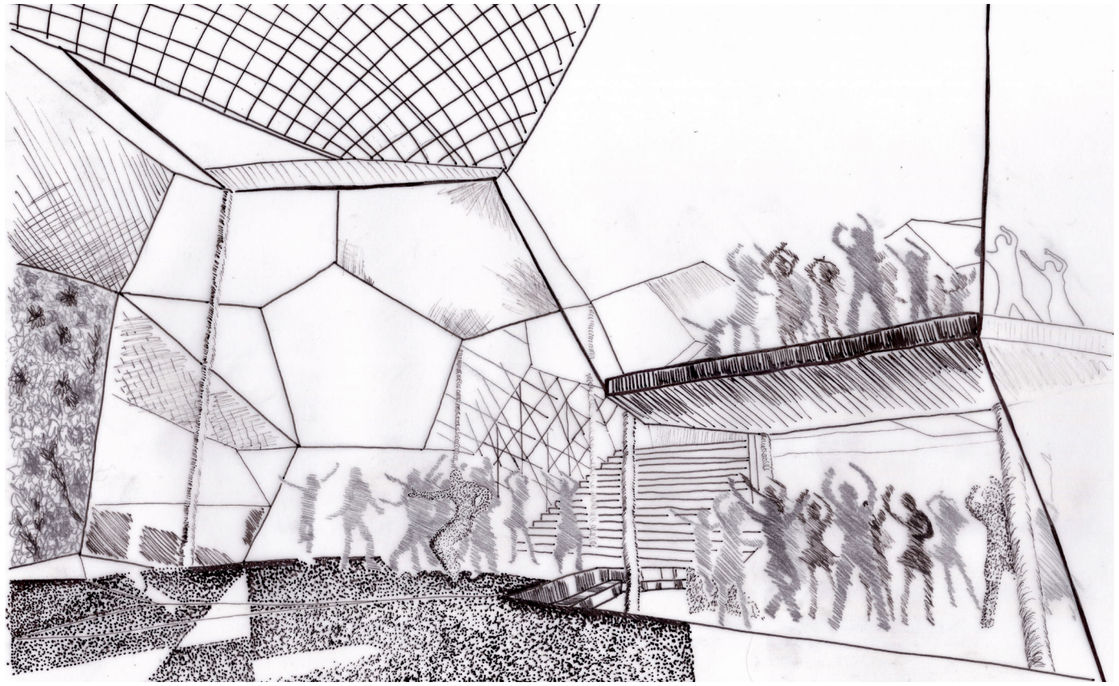


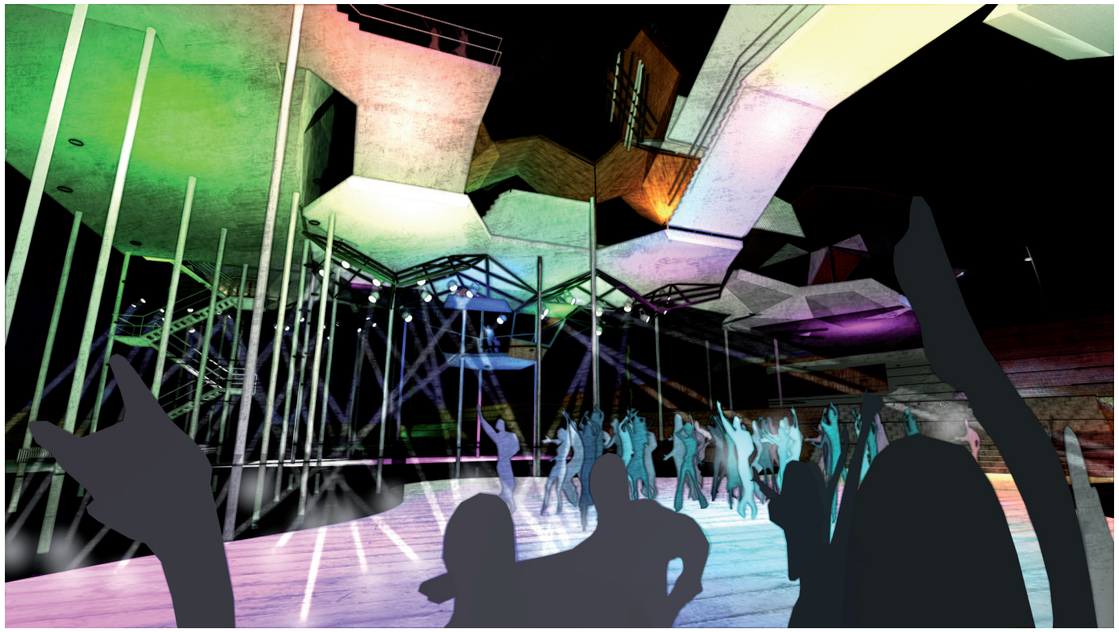
ROOF PLAN OF THE CLOUD



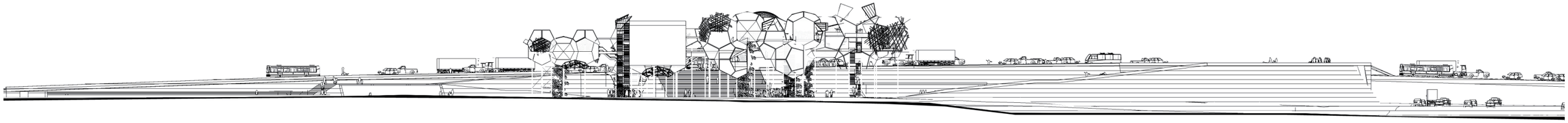
PLAN OF THE CLOUD

INTERIOR PERSPECTIVE-PORTION OF THE MAIN DANCE FLOOR

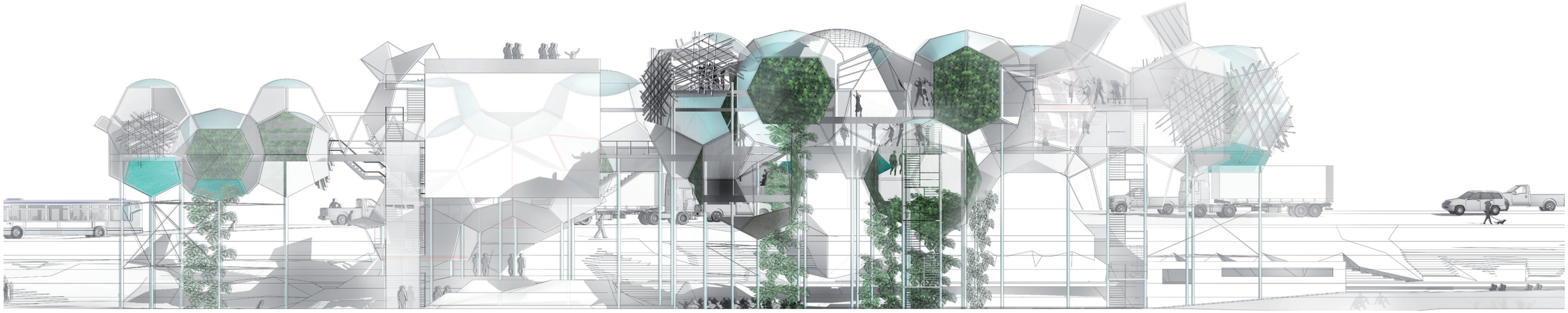




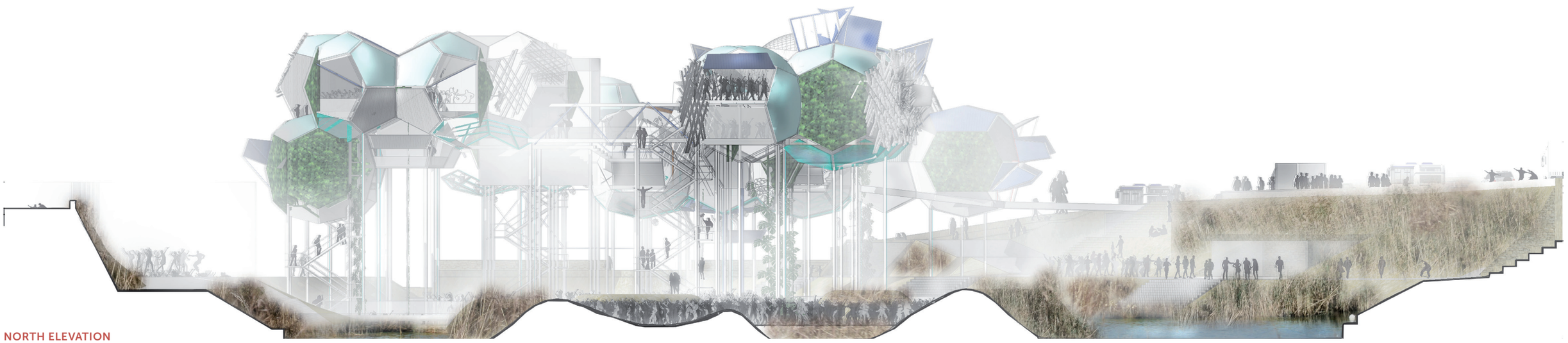
NIGHT PERSPECTIVE RENDER-
UNDERNEATH THE CLOUD



EAST ELEVATION-FULL EXTENTS OF PARTY SANCTUARY SHOWING N12
HIGHWAY RELATIONSHIP

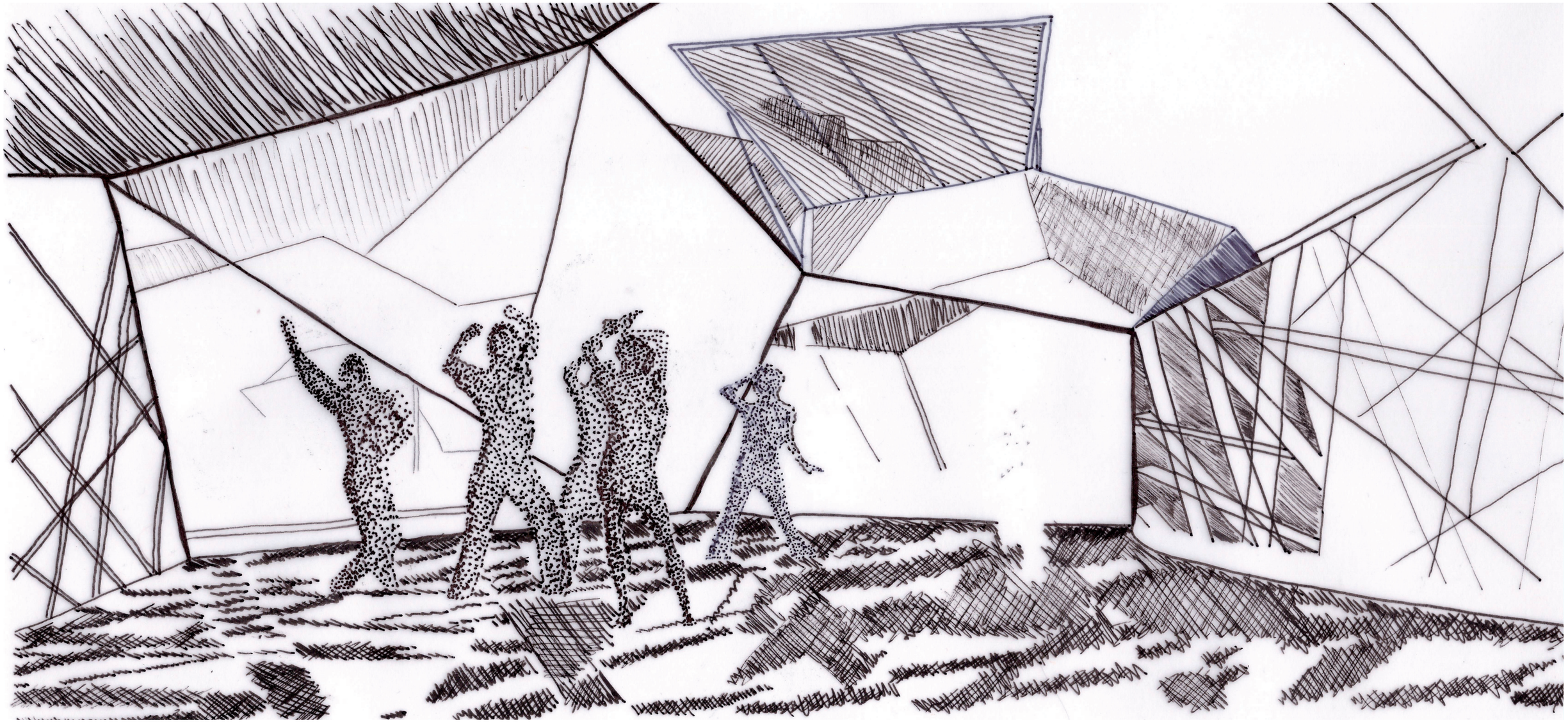


EAST ELEVATION

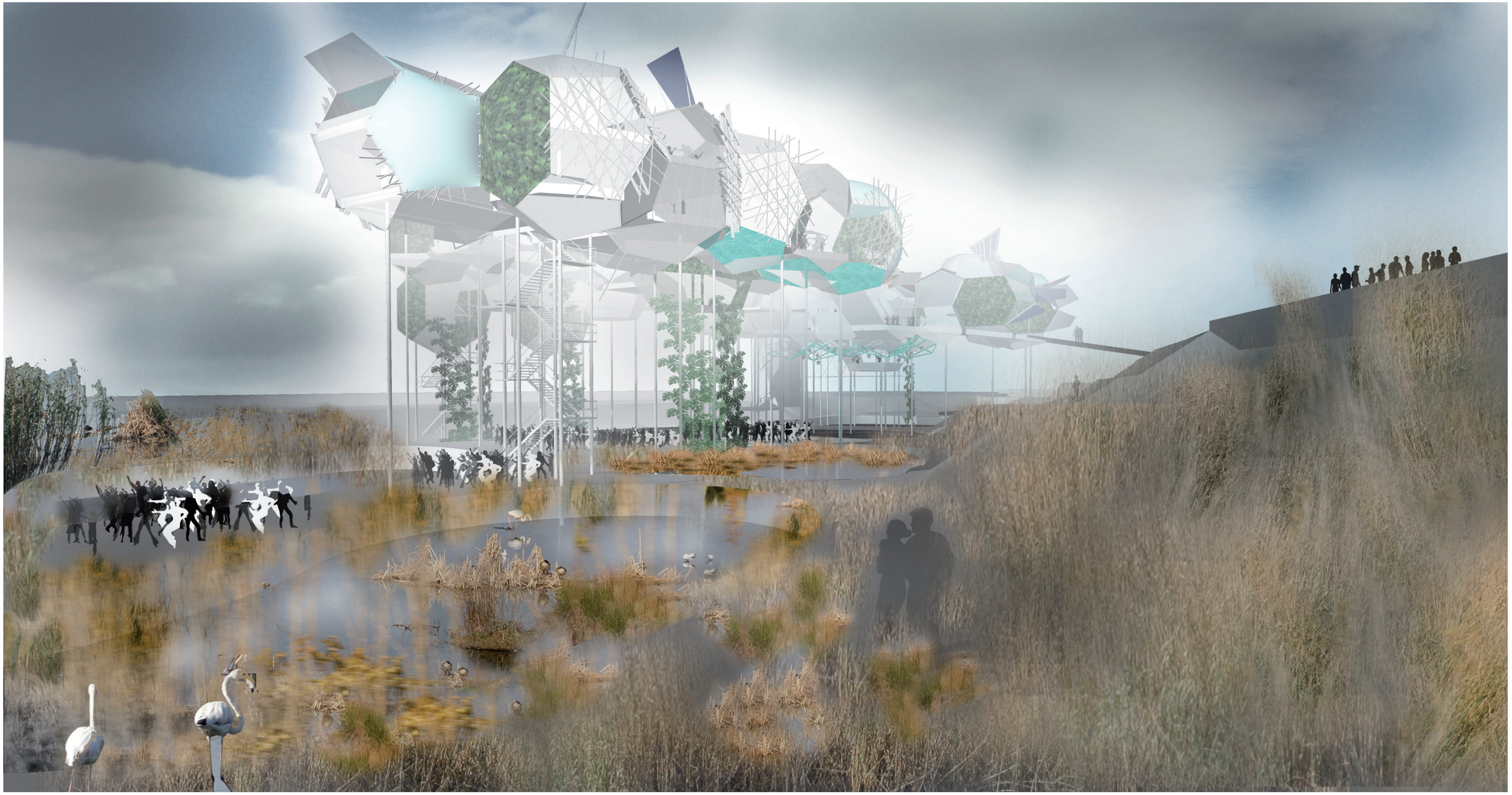


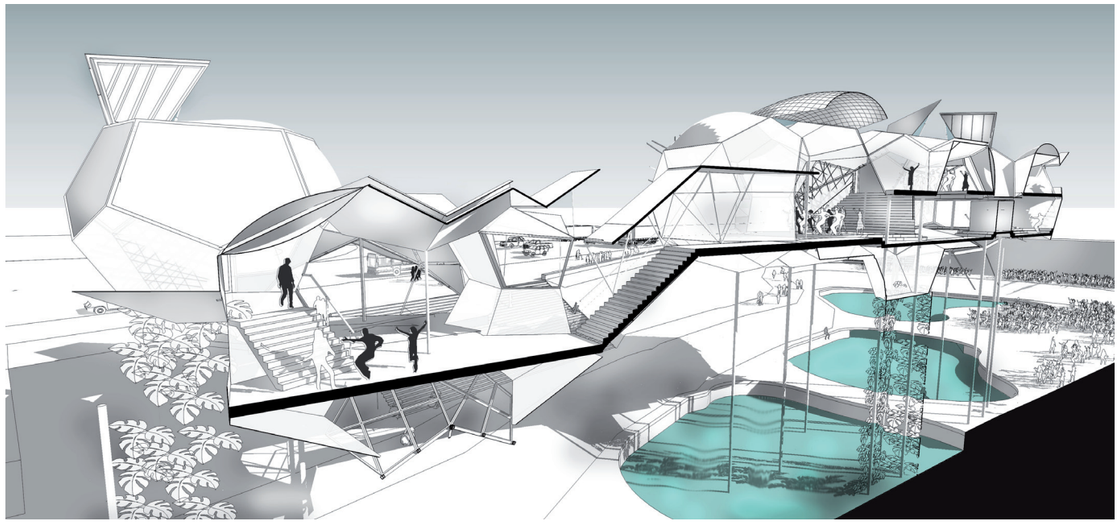
NORTH ELEVATION

INTERIOR PERSPECTIVE-PORTION OF THE MAIN
DANCE FLOOR-STIPPLING MEDIUM

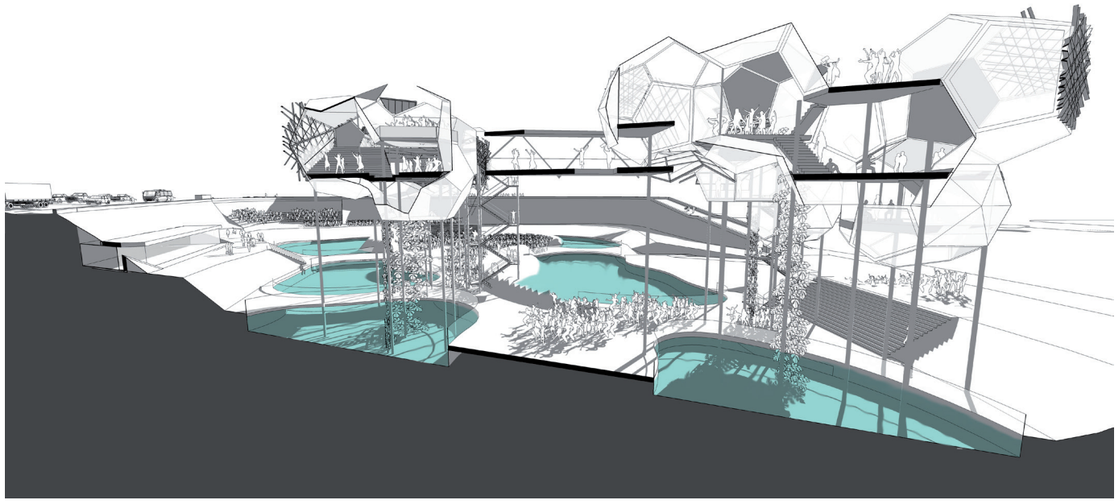


PERSPECTIVE TAKEN FROM INSIDE *PARTY SANCTUARY* FROM THE NORTHERN CORNER OF THE SITE-EARLY RENDER

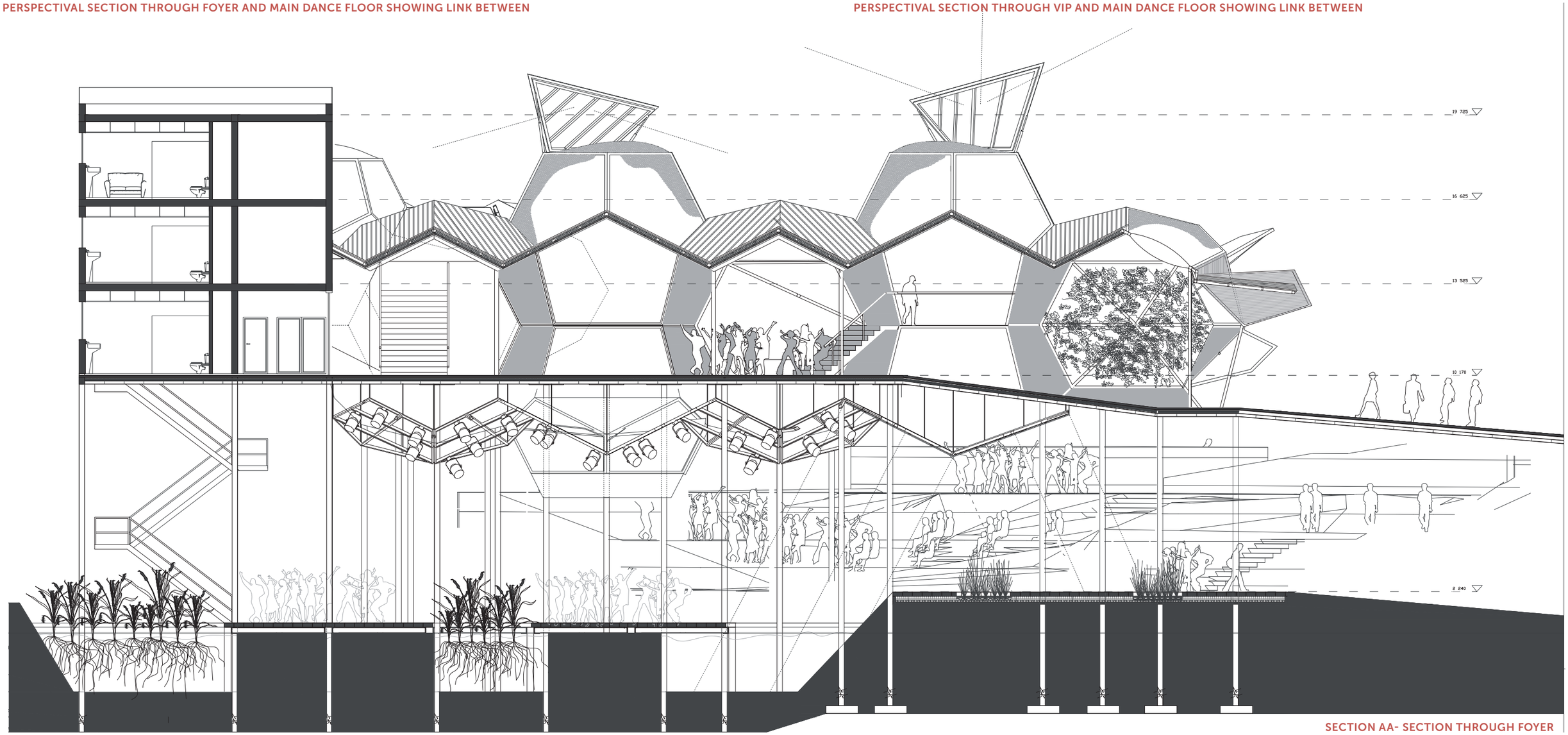




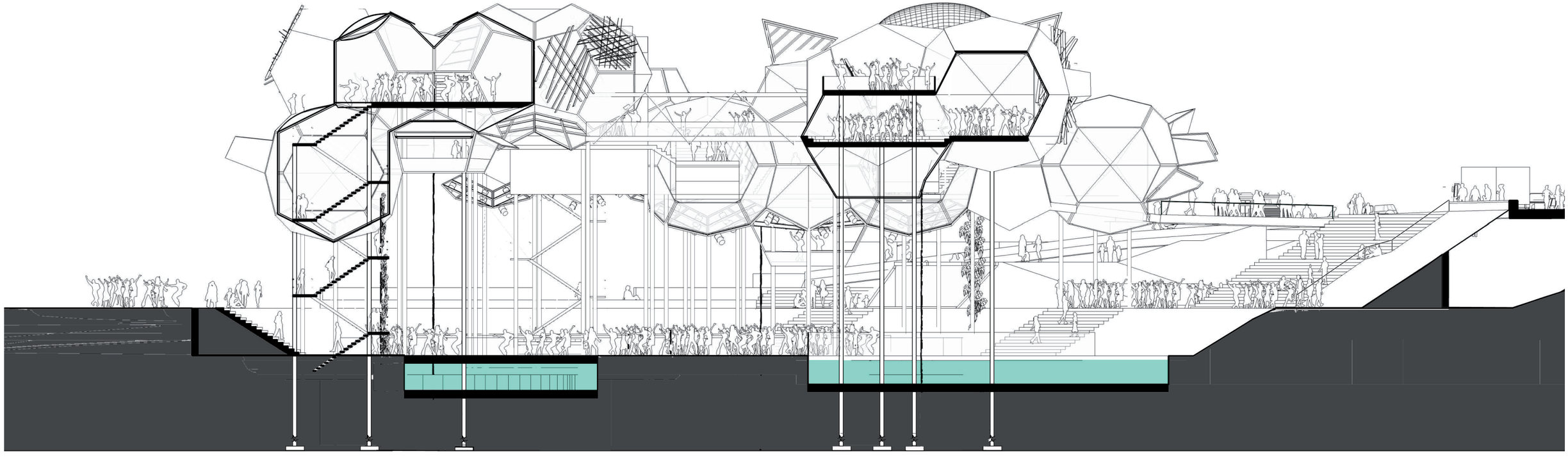
PERSPECTIVAL SECTION THROUGH FOYER AND MAIN DANCE FLOOR SHOWING LINK BETWEEN



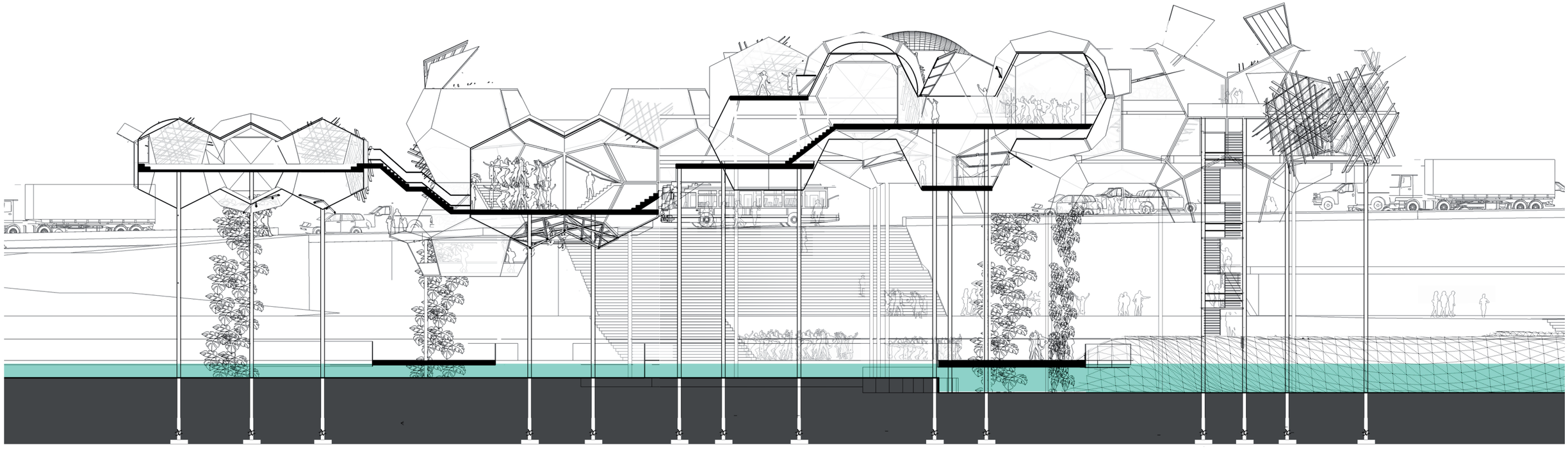
PERSPECTIVAL SECTION THROUGH VIP AND MAIN DANCE FLOOR SHOWING LINK BETWEEN



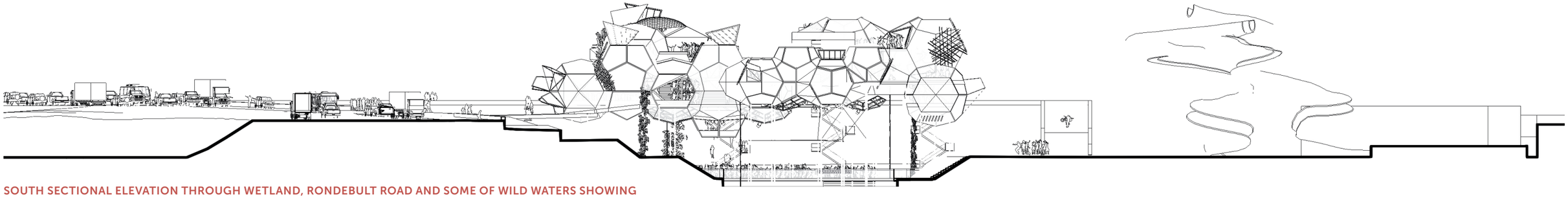
SECTION AA- SECTION THROUGH FOYER



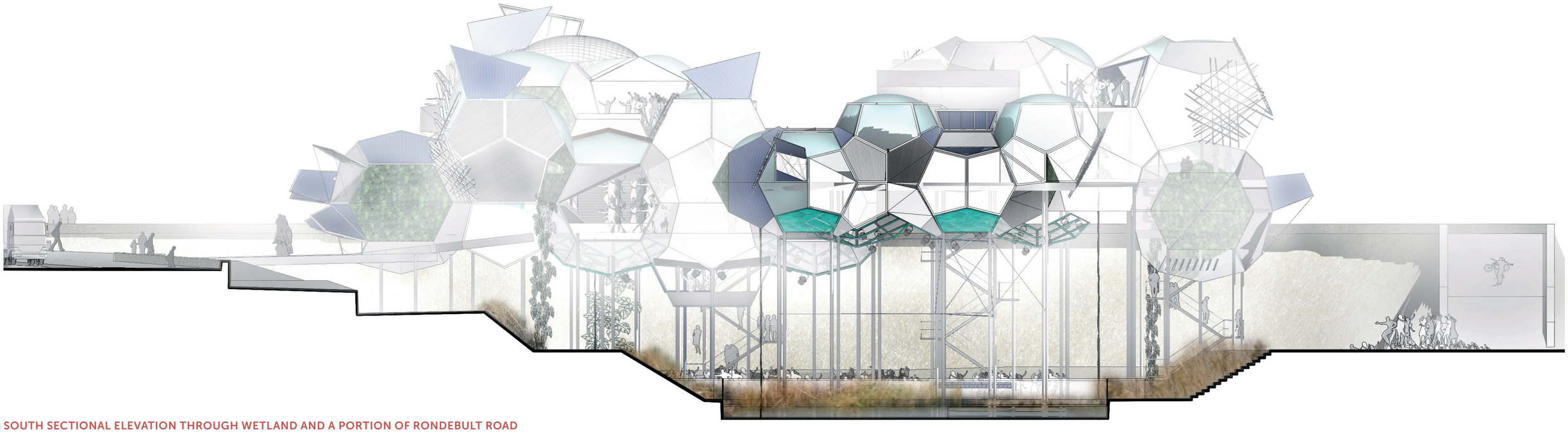
SECTION BB THROUGH THE MAIN DANCE FLOOR AND VIP



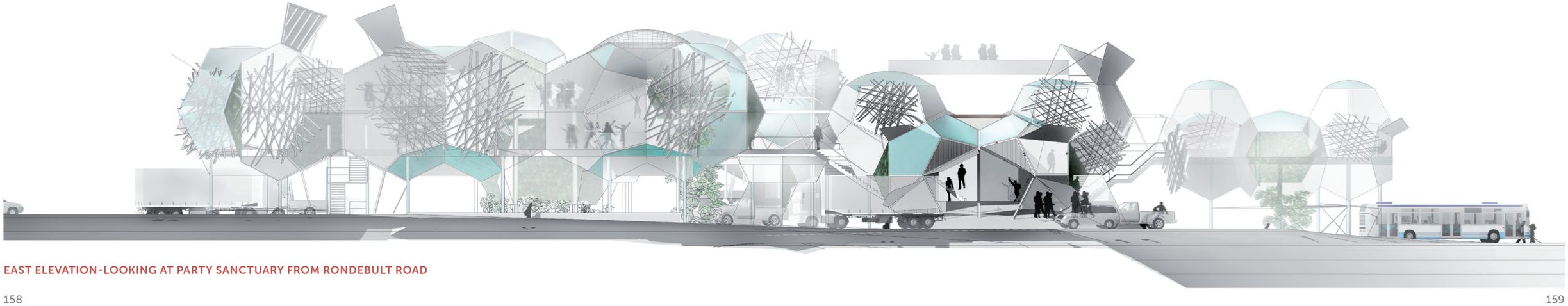
SECTION CC- A STEPPED SECTION THROUGH VIP, FOYER AND LOUNGE GLOOP



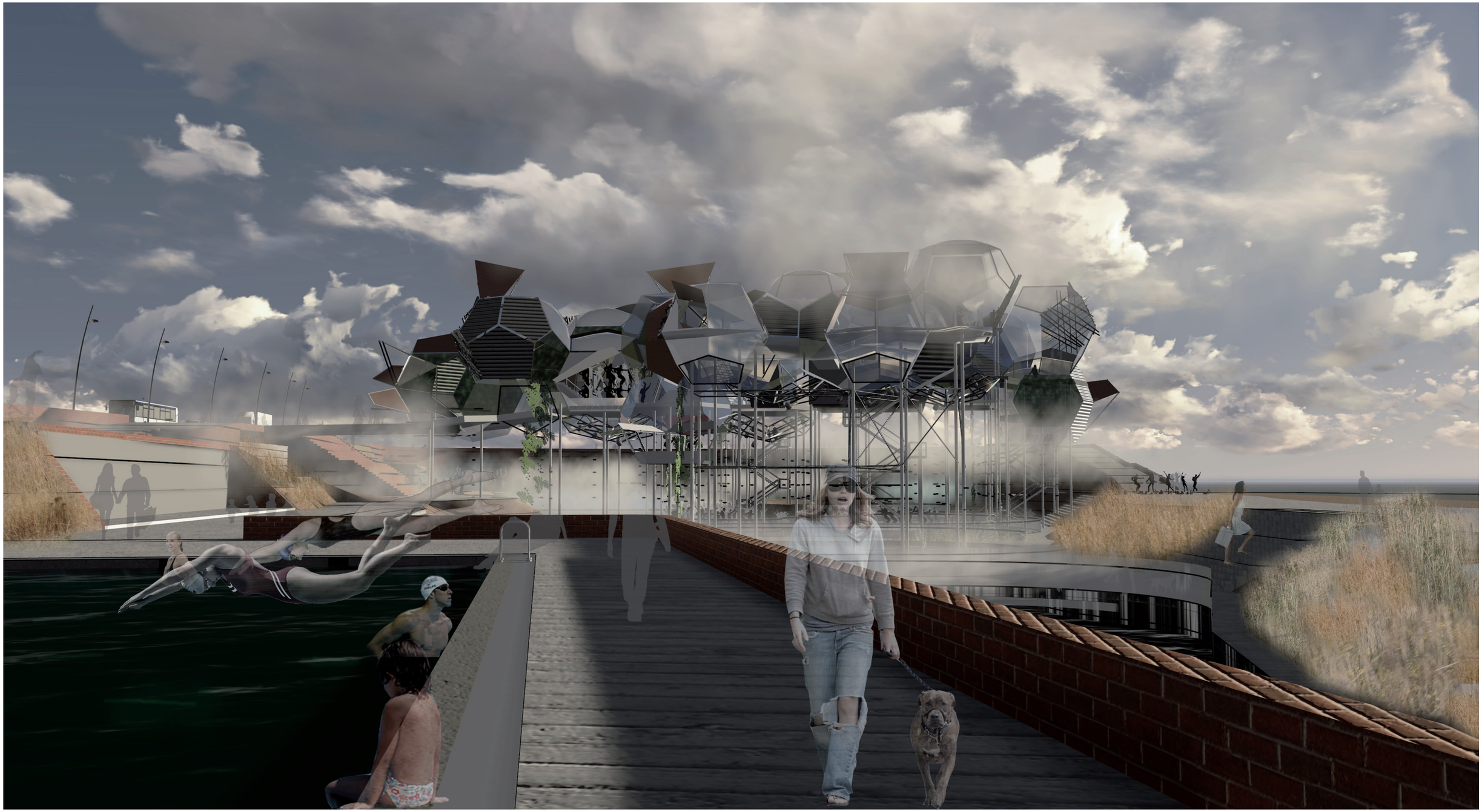
SOUTH SECTIONAL ELEVATION THROUGH WETLAND, RONDEBULT ROAD AND SOME OF WILD WATERS SHOWING RELATIONSHIP BETWEEN THE CLOUD, THE SLIDE AND THE ROAD



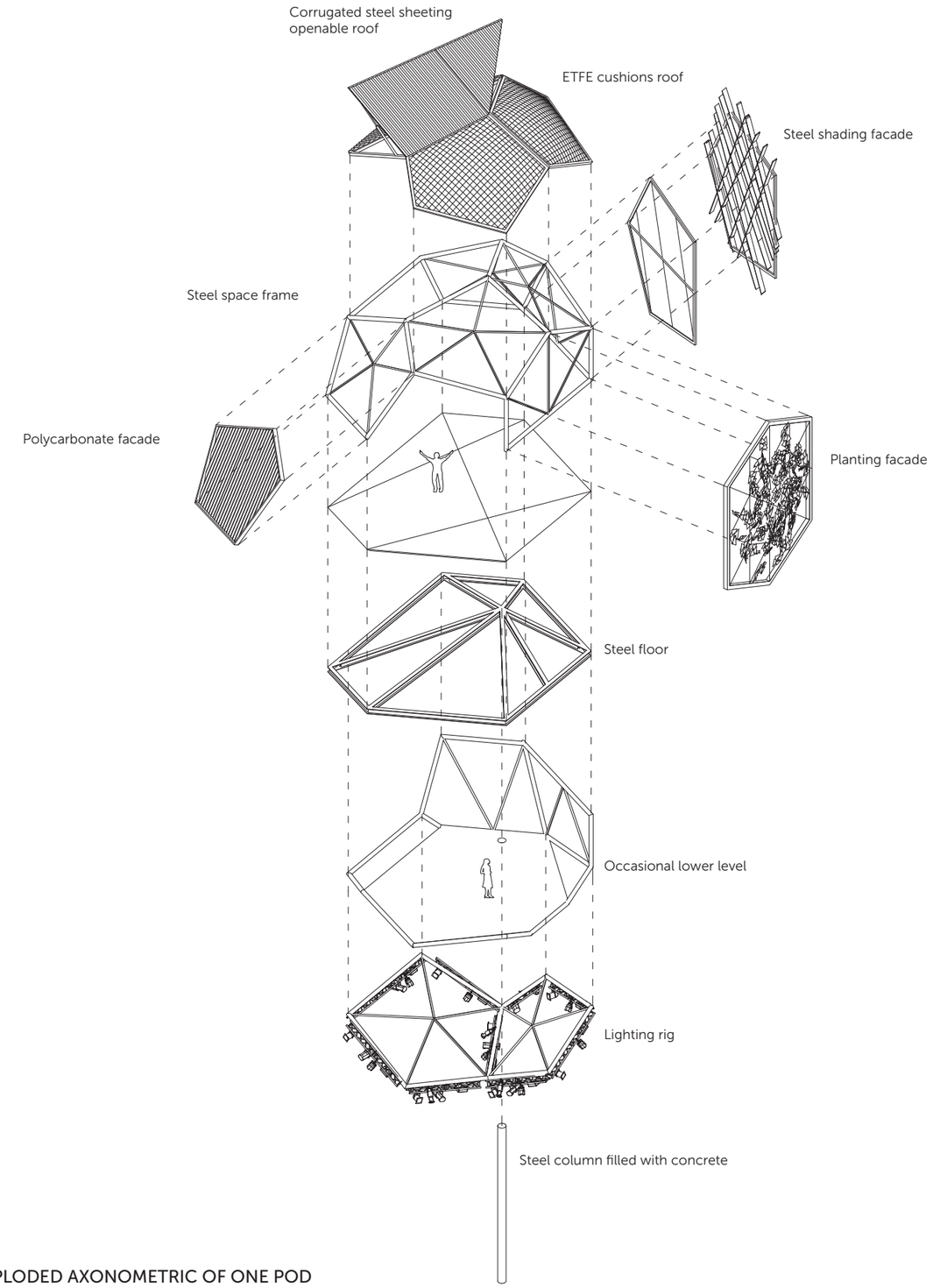
SOUTH SECTIONAL ELEVATION THROUGH WETLAND AND A PORTION OF RONDEBULT ROAD



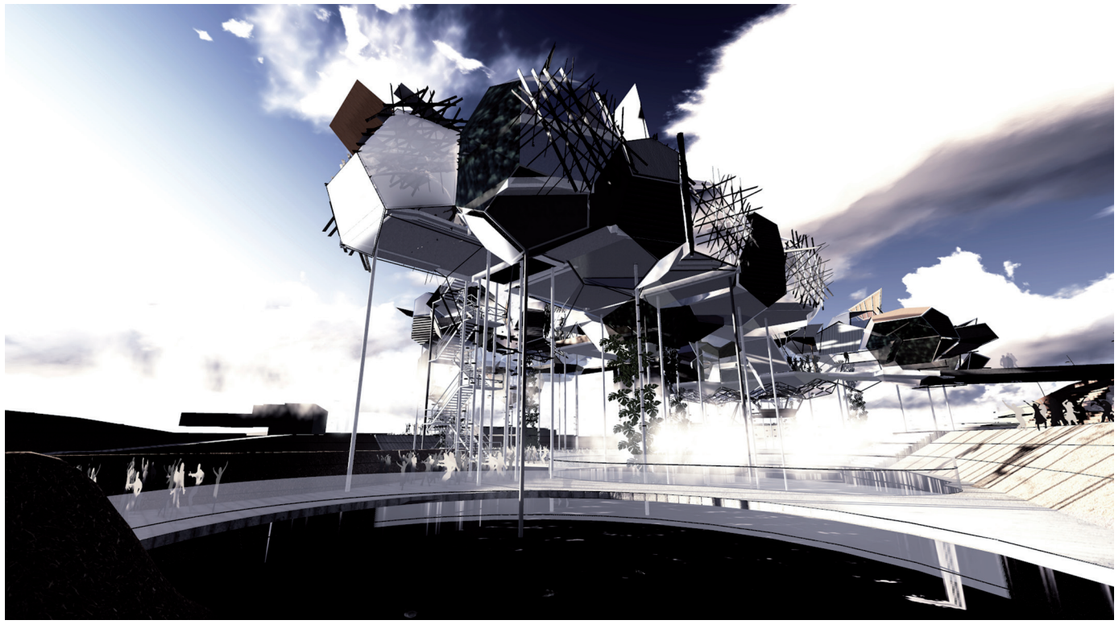
EAST ELEVATION-LOOKING AT PARTY SANCTUARY FROM RONDEBULT ROAD

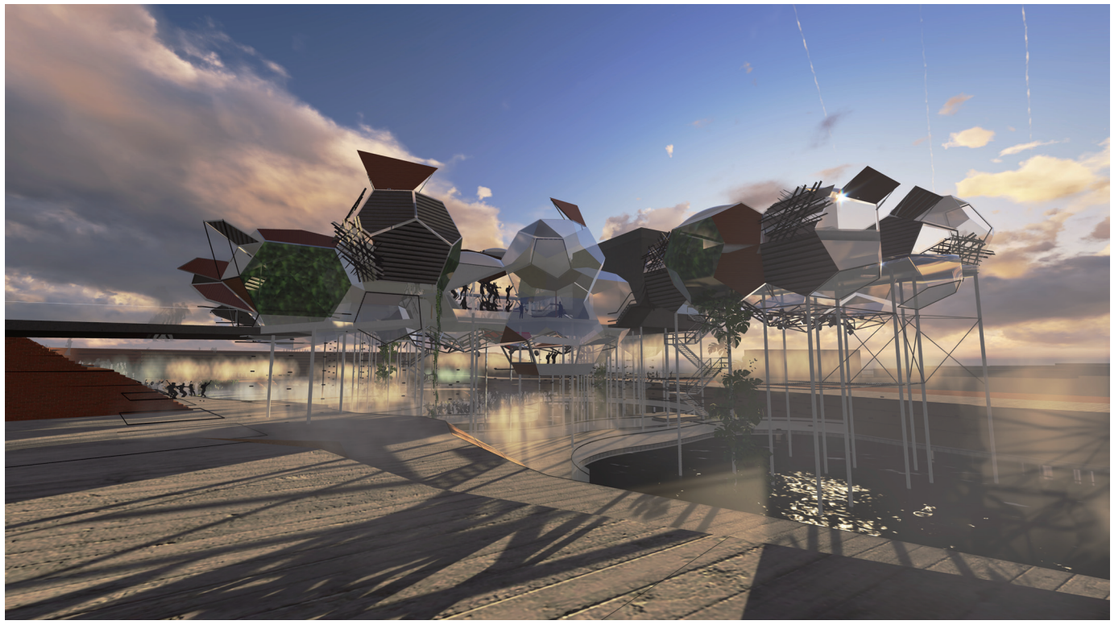


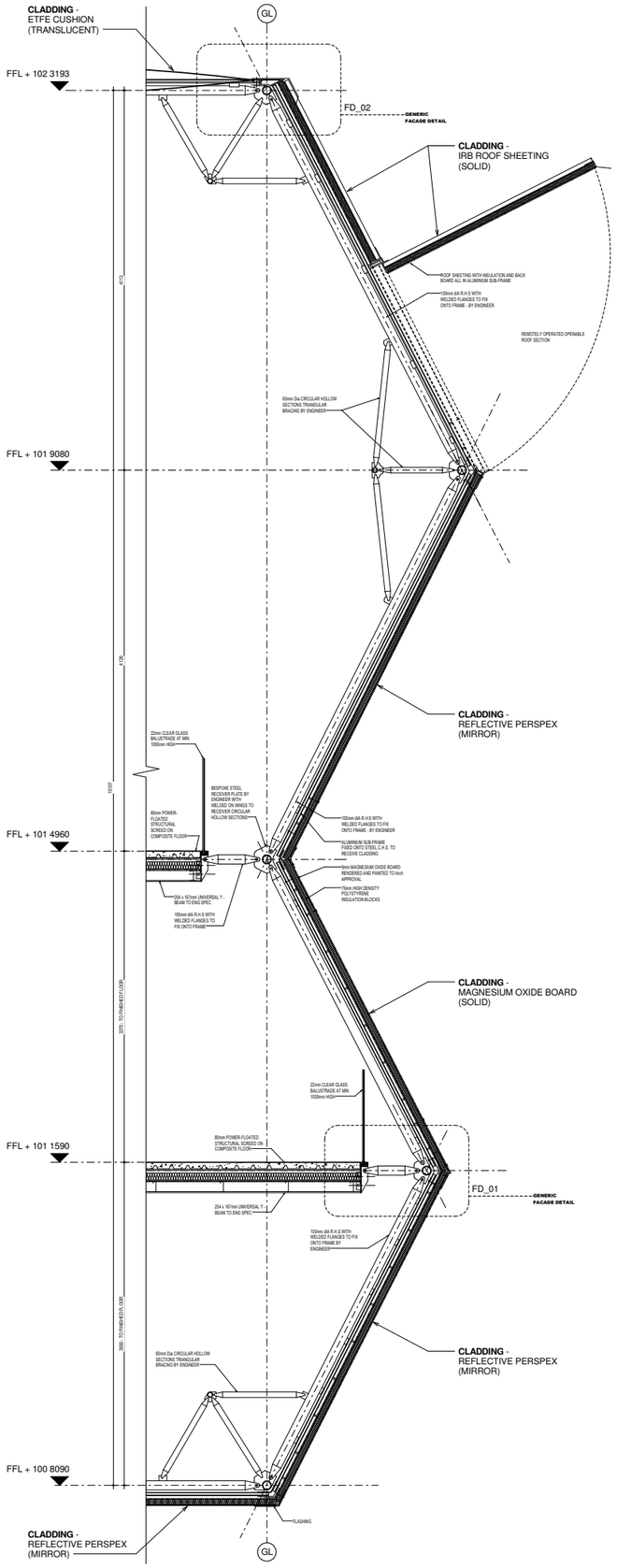
RENDER FROM PUBLIC POOL

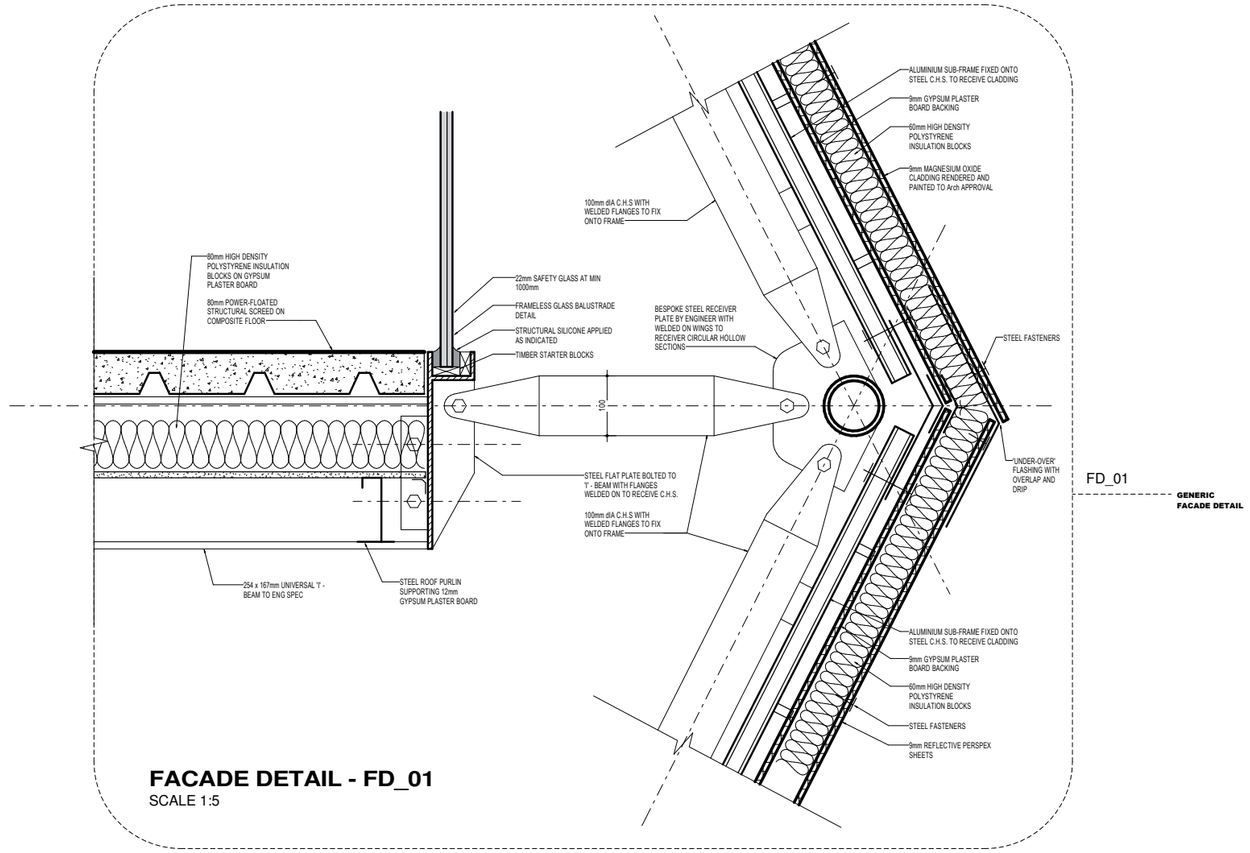


EXPLODED AXONOMETRIC OF ONE POD



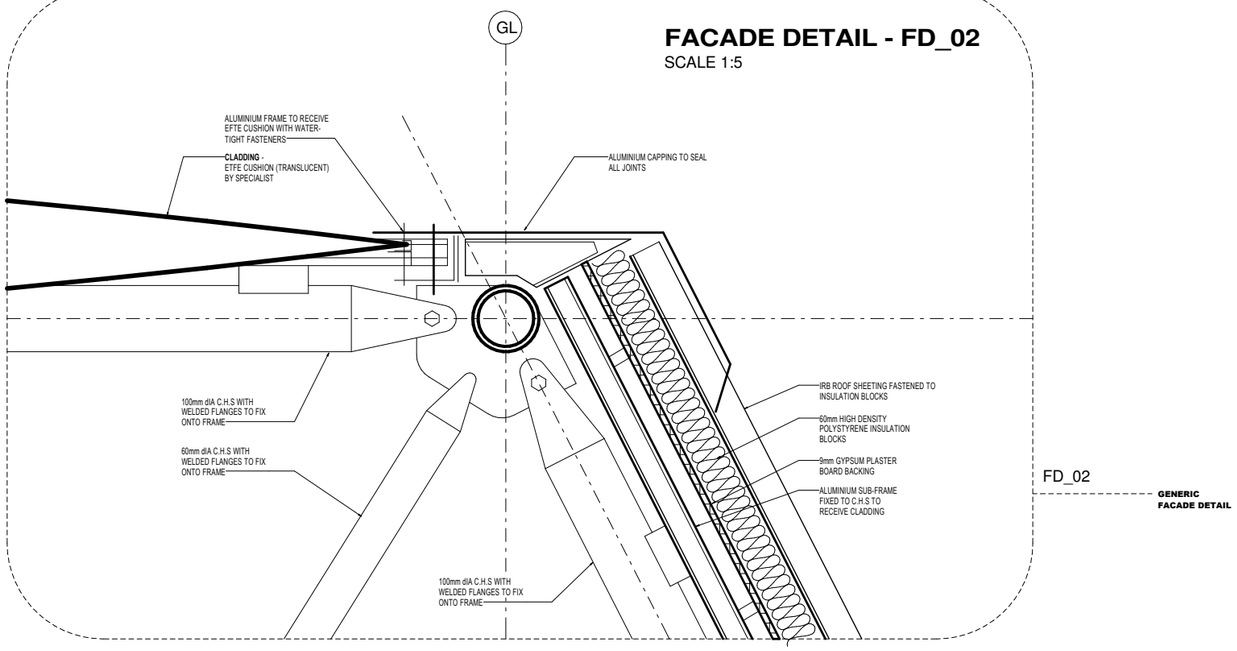






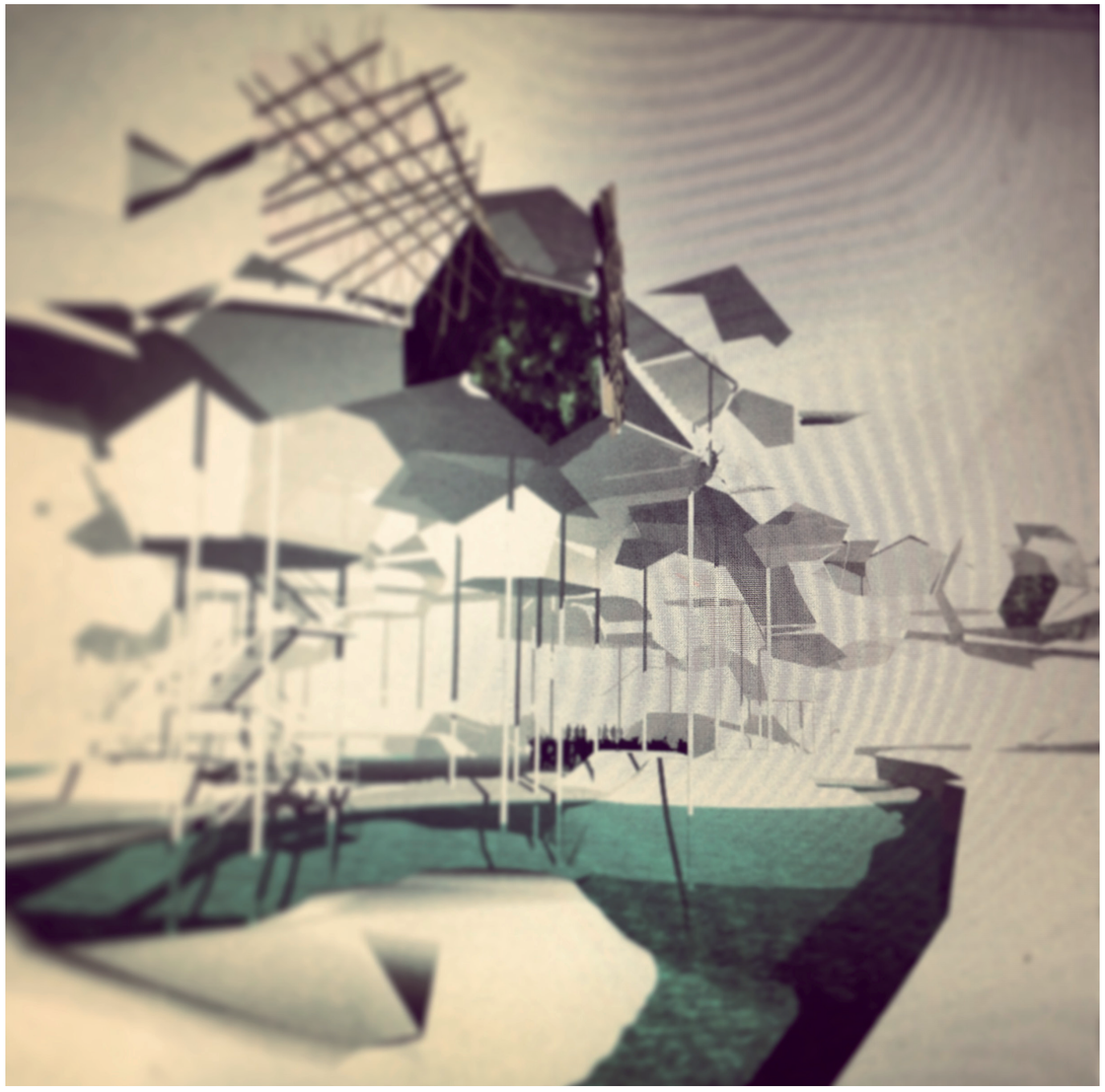
FACADE DETAIL - FD_01
SCALE 1:5

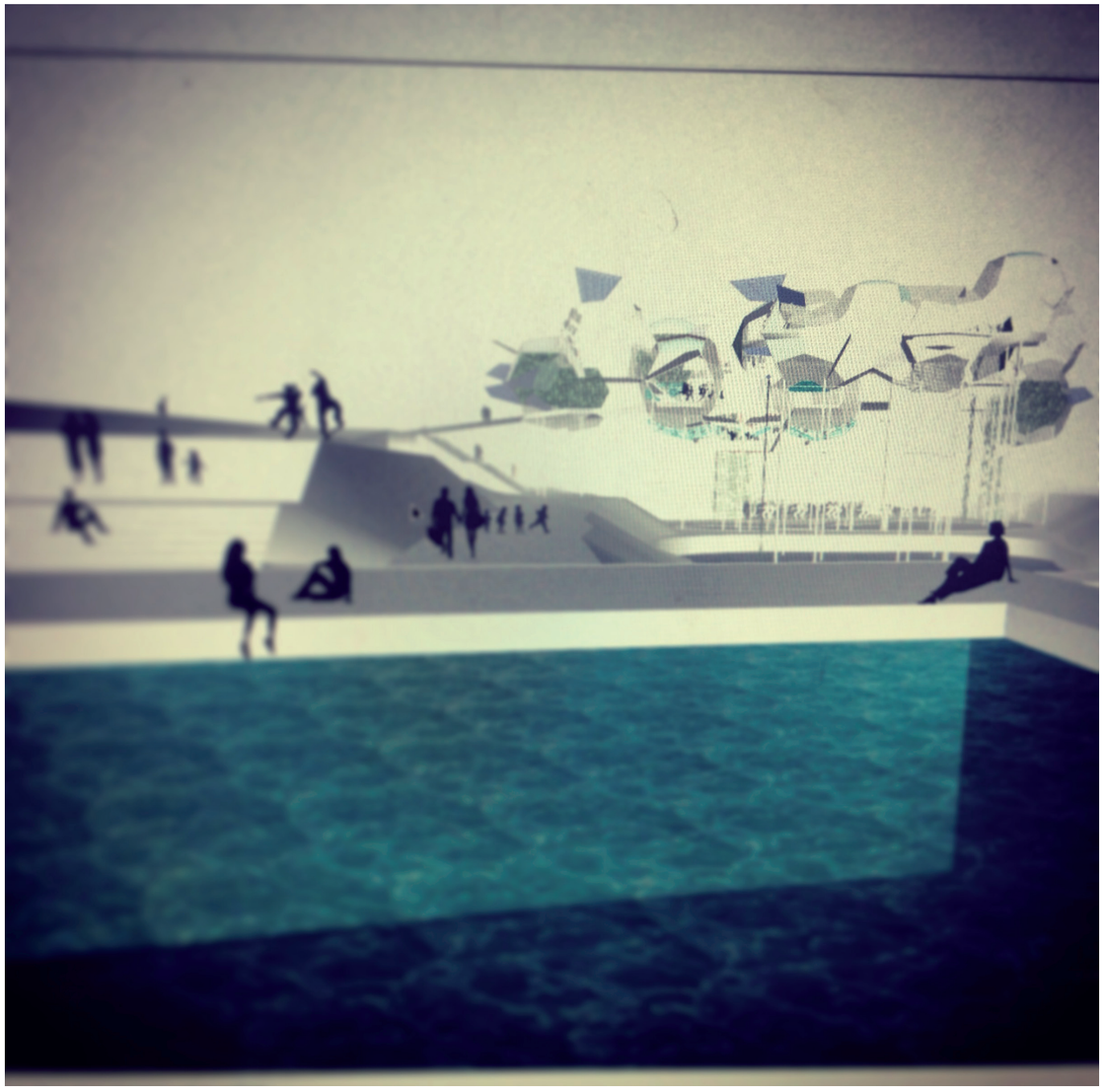
FD_01
GENERIC FACADE DETAIL



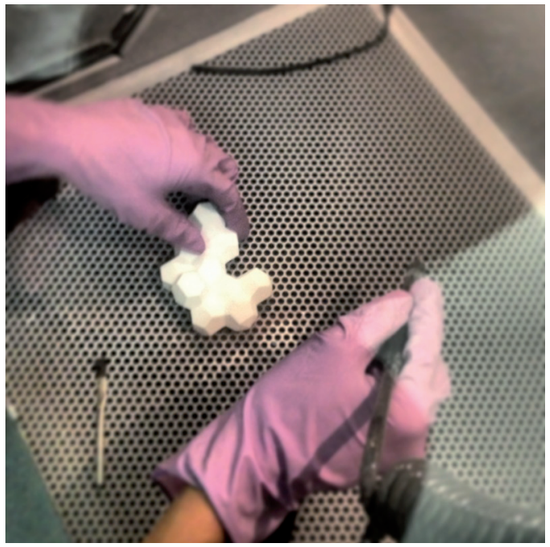
FACADE DETAIL - FD_02
SCALE 1:5

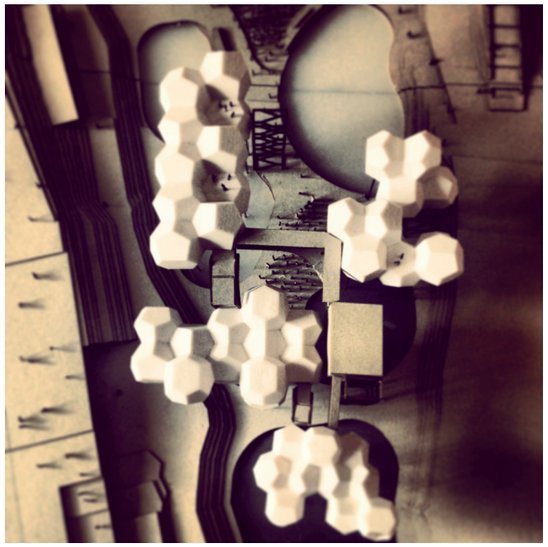
FD_02
GENERIC FACADE DETAIL

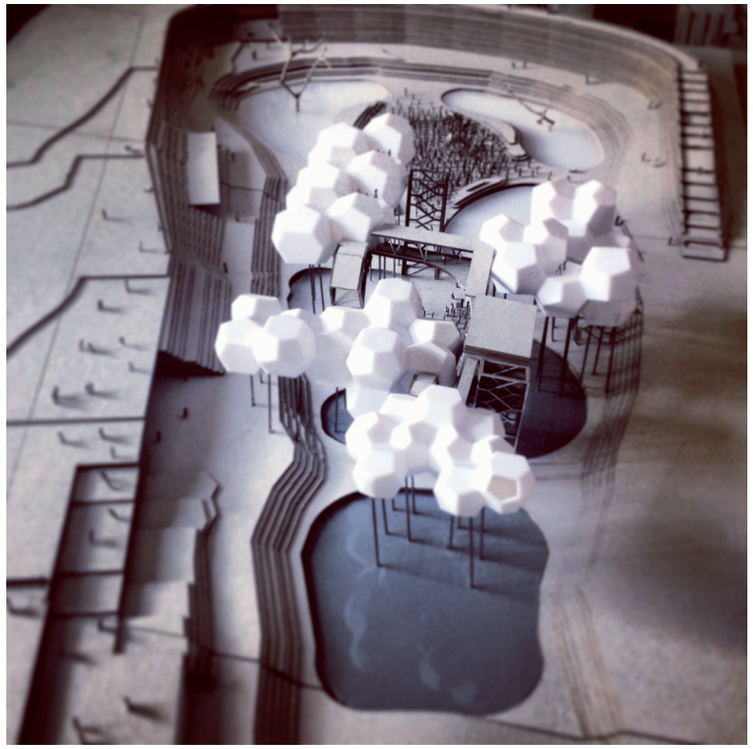


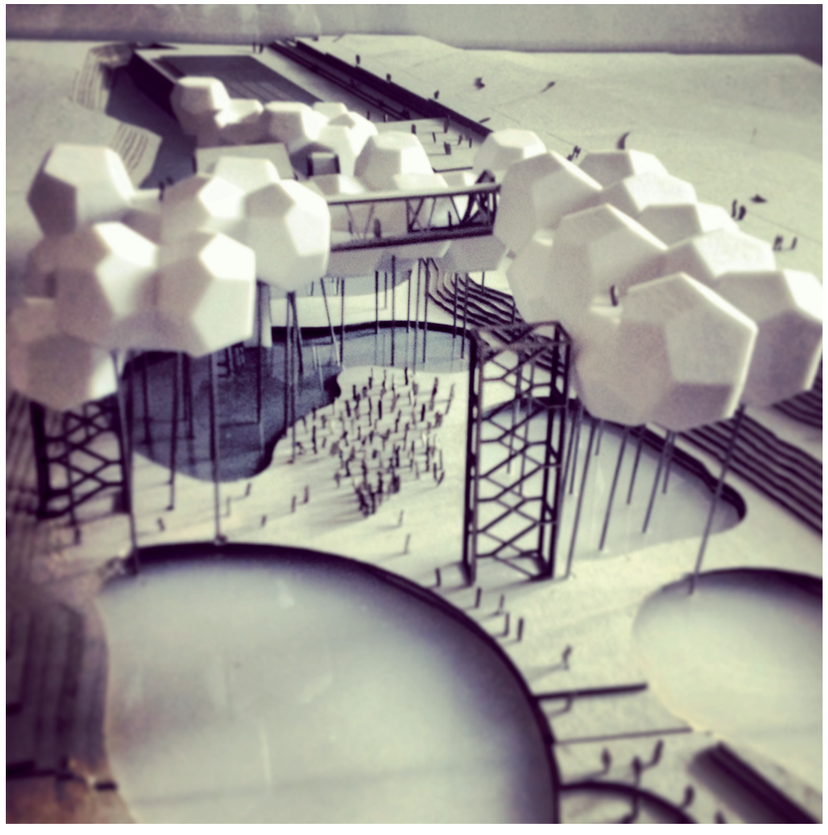


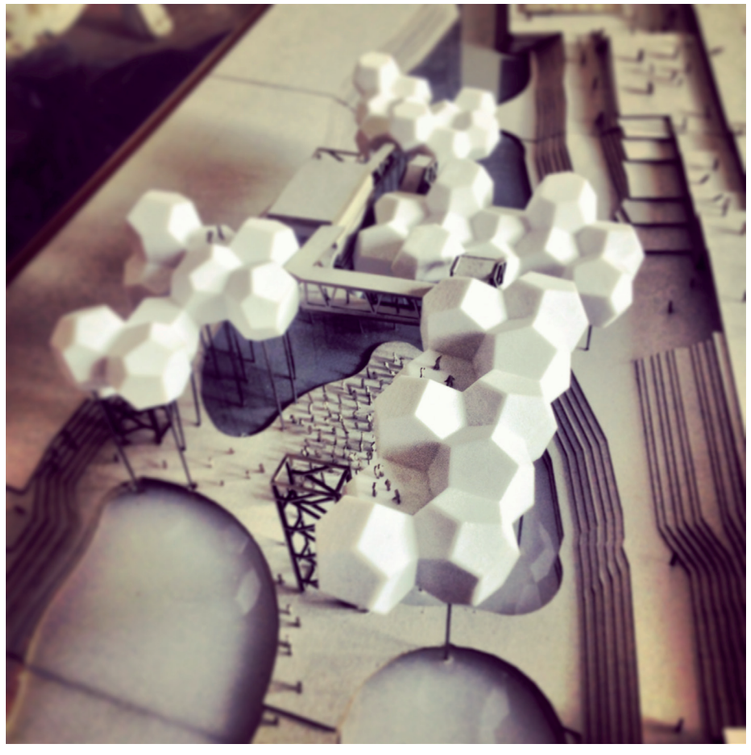
MODEL





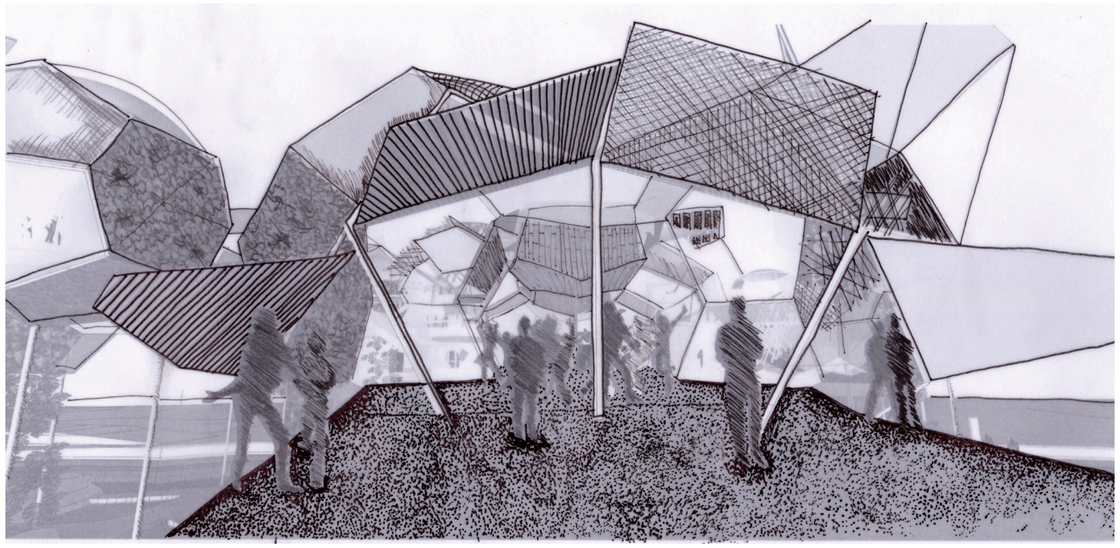


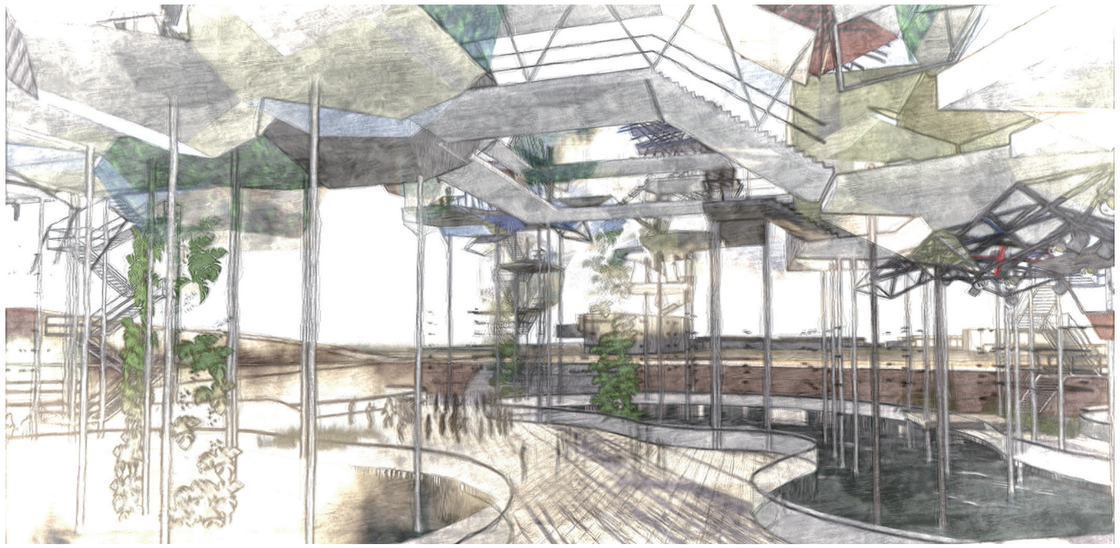




MODEL

PERSPECTIVE APPROACHING THE ENTRANCE TO THE CLOUD FROM RONDEBULT ROAD FOLLOWED BY A RENDER UNDERNEATH THE CLOUD SHOWING BRIDGE CONNECTIONS BETWEEN GLOOPS





E.
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